

# STIC Search Report Biotech-Chem Library

#### STIC Database Tracking Number: 102152

TO: John Ulm

Location: CM-1/10D19

Art Unit: 1646

Wednesday, August 27, 2003 Case Serial Number: 09988745 From: Paul Schulwitz

**Location: Biotech-Chem Library** 

CM1-6B06

Phone: 305-1954

paul.schulwitz@uspto.gov

#### Search Notes

Examiner Ulm,

See attached results.

If you have any questions about this search feel free to contact me at any time.

Thank you for using STIC search services!

Paul Schulwitz Technical Information Specialist STIC Biotech/Chem Library (703)305-1954



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#### **SEARCH REQUEST FORM**

Access DB# 102152 OL 8/26

REC. Scientific and Technical Information Center

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Requester's Full Name: AUG 22774	4/2	Evaminer # 6950) Date: 8-32-57	
Art Linit: 1646 Phone Nu	mber 30 8 - 4008	Serial Number: 99/988245	
Mail Box and Bldg/Room Location:	CM / Resul	Examiner #: 6950) Date: 8-22-07  Serial Number: 09/988745  ts Format Preferred (circle): PAPER) DISK E-MA	П
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If more than one search is submit	ted, please prioritize	searches in order of need.	
Please provide a detailed statement of the se	varich topic, and describe a	s specifically as possible the subject matter to be searched.	
Include the elected species or structures, key	ywords, synonyms, acrony nat may have a special mea	rms, and registry numbers, and combine with the concept or uning. Give examples or relevant citations, authors, etc. if	٠
Title of Invention:			
Inventors (please provide full names):			
· .			
Earliest Priority Filing Date:			
	all pertinent information (	 parent, child, divisional, or issued patent numbers) along with the	
appropriate serial number.	an periment injormation (p	arent, chia, artistoriai, or issuea parent numbers, areng	
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STAFF USE ONLY	Type of Search		
Searcher:	NA Sequence (#)		
Searcher Phone #:	AA Sequence (#)		
Searcher Location:	Structure (#)	Questel/Orbit	
Date Searcher Picked Up: 8/26	Bibliographic	Dr.Link	
Date Completed: 8/2+	Litigation	Lexis/Nexis	
Searcher Prep & Review Time:	Fulltext	Sequence Systems	
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Online Time:	Other	Other (specify)	

PTO-1590 (1-2000)

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Listing first 45 summaries
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:/cgn2_6/ptodata/1/pubpaa/US08_NEW.PUB.pep:*
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US-10-251-852-2

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685, Appl
14, Appl
114, Appl
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### ALIGNMENTS

RESULT 1 US-10-180-946-2

Sequence 2, Application US/1018 Publication No. US20030093825A1

US/10180946

; LENGTH: 337 ; TYPE: PRT ; ORGANISM: HOMO s US-10-180-946-2 δõ QY 밁 밁 Š 밁 GENERAL INFORMATION:

APPLICANT: Allen, Keith D.

TITLE OF INVENTION: PUTATIVE NEUROTRANSMITTER RECEPTOR (PNR)

TITLE OF INVENTION: DISRUPTIONS, COMPOSITIONS AND METHODS RELATING THERETO

FILE REFERENCE: R-336

CURRENT APPLICATION NUMBER: US/10/180,946

CURRENT FILING DATE: 2002-10-01

PRIOR APPLICATION NUMBER: US 60/301,060

PRIOR APPLICATION NUMBER: US 60/340,380

PRIOR FILING DATE: 2001-12-14 Query Match
Best Local Similarity
Matches 337; Conserv SOFTWARE: SEQ ID NO 2 NUMBER OF SEQ ID NOS: 61 61 س 1 MRAVFIQGAEEHPAAFCYQVNGSCPRTVHTLGIQLVIYLTCAAGMLIIVLGNVFVAFAVS FastSEQ for Windows Version 4.0 YFKALHTPTNFLLLSLALADMFLGLLVLPLSTIRSVESCWFFGDFLCRLHTYLDTLFCLT MRAYFIQGAEEHPAAFCYQVNGSCPRTVHTLGIQLVIYLTCAAGMLIIVLGNVFVAFAVS YFKALHTPTNFLLLSLALADMFLGLLVLPLSTIRSVESCWFFGDFLCRLHTYLDTLFCLT 100.0%; ilarity 100.0%; Conservative 0 sapiens 0; Score 1785; DB 15; Pred. No. 1.6e-153; Mismatches 0; Indels Length 0; Gaps 180 120 120 180 60 0

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Sequence 358, Application US/10225567A

Publication No. US20030113798A1

GENERAL INFORMATION:
APPLICANT: LifeSpan Biosciences
APPLICANT: LifeSpan Biosciences
APPLICANT: Burmer, Glenna C.
APPLICANT: Roush, Christine L.
TITLE OF INVENTION: ANTIGENIC PEPTIDES AND ANTIBODIES FOR G PROTEIN-COUPLED RECE!
FILE REFERENCE: 1920-4-4
CURRENT APPLICATION NUMBER: US/10/225,567A
CURRENT FILING DATE: 2001-12-19
PRIOR APPLICATION NUMBER: 000-12-19
PRIOR APPLICATION NUMBER: 000-12-19
SOFTWARE: Patentin version 3.1
SEQ ID NO 358
LENGTH: 337
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              Sequence 4, Application US/10330220 Publication No. US20030113789A1 GENERAL INFORMATION:
APPLICANT: Wang et al.
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Pred. No. 1.6e-153;
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TITLE OF INVENTION: PROTEINS, AND USES THER
FILE REFERENCE: CLOO0755CON
CURRENT APPLICATION NUMBER: US/10/330,220
CURRENT FILING DATE: 2002-12-30
PRIOR APPLICATION NUMBER: US 99/637,603
PRIOR FILING DATE: 2000-08-15
PRIOR APPLICATION NUMBER: US 60/192,326
PRIOR APPLICATION NUMBER: US 60/192,326
PRIOR FILING DATE: 2000-03-27
NUMBER OF SEQ ID NOS: 4
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 4
LENGTH: 321
TYPE: PRT
ORGANISH: HOMO SAPIEN
                              ; ORGANISM: Human US-10-251-852-5
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Best Local S
Matches 321
                                                                                          SEQ ID NO 5
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                                                                                                                                                                                                                                                                                                                                                      Sequence 5, Application US/10251852 Publication No. US20030119144A1
 Query Match
                                                                                                                                  PRIOR FILING DATE: 2001-02-13
PRIOR APPLICATION NUMBER: 09/694,821
PRIOR FILING DATE: 2000-10-24
PRIOR APPLICATION NUMBER: 60/208,929
PRIOR FILING DATE: 2000-06-05
                                                                                                                                                                                                             FILE REFERENCE: CL000899-CON
CURRENT APPLICATION NUMBER: US/10/251,852
CURRENT FILING DATE: 2002-09-23
PRIOR APPLICATION NUMBER: 09/781,559
PRIOR APPLICATION NUMBER: 09/781,559
                                                                                                         SOFTWARE:
                                                                                                                        NUMBER OF SEQ ID NOS:
                                                              TYPE: PRT
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Similarity 100.0%; Pred. No. 4e-146;
21; Conservative 0; Mismatches 0;
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                                                                                                       Windows Version
 95.48;
 Score 1703;
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DB
15;
Length
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APPLICANT: WEI, Ming-Hui et al.
TITLE OF INVENTION: ISOLATED HUMAN G-PROTEIN COUPLED
TITLE OF INVENTION: RECEPTORS, NUCLEIC ACID MOLECULES
TITLE OF INVENTION: PROTEINS, AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                              121 CDPLLYPSKFTVRVALRYILAGWGVPAAYTSLFLYTDVVETRLSQWLEEMPCVGSCQLLL
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US-10-225-567A-645
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US-10-225-567A-645
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APPLICANT: LifeSpan Biosciences
APPLICANT: Brown, Joseph P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 2292
SOFTWARE: PatentIn version 3.1
SEQ ID NO 645
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/10/225,567A CURRENT FILING DATE: 2001-12-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILE REFERENCE: 1920-4-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: BOOWN, JOSEPH P.
APPLICANT: Burmer, Glenna C.
APPLICANT: ROUSH, Christine L.
TITLE OF INVENTION: ANTIGENIC PEPTIDES AND ANTIBOD:ES FOR G PROTEIN-COUPLED RECEPTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 34
TYPE: PRT
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 RKAAKTLGIVVGIYLLCWLPFTIDTMVDSLLHFITPPLVIDIFIWFAYFNSACNPIIYVF
                                                  LIQUAVVLLCFLLFFIRIVAMVEIYSKIFLVAKHQARKIEKTASQAQSSSESYKERVAKRE
                                                                     LNKFWGWLNFPLFFVPCLIMISLYVKIFVVAIRQAQQI-JILSKSLAGA------AKHE 247
                                                                                                                                                      ICDPLLYPSKFTVRVALRYILAGWGVPAAYTSLFLYTDV\ ETRLSQWLEEMPCVGSCQLL 195
                                                                                                                                                                                        LACADFLVGVTVMPFSTVRSVESCWYFGDSYCKFHTCFD1SFCFASLFHLCCISVDRYIA 133
                                                                                                                                                                                                           LALADMFLGLLVLPLSTIRSVESCWFFGDFLCRLHTYLD)LFCLTSIFHLCFISIDRHCA 135
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Publication No.
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PRIOR FILING DATE: 2000-11-27
PRIOR APPLICATION NUMBER: 60/255,366
PRIOR FILING DATE: 2000-12-12
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PRIOR FILING DATE: 1998-10-13
PRIOR APPLICATION NUMBER: PCT/US99/2:
PRIOR FILING DATE: 1998-10-13
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CURRENT FILING DATE: 2001-11-26
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Chen, Ruoping
APPLICANT: Chu, Zhi Liang
APPLICANT: Dang, Huong T.
APPLICANT: Lowitz, Kevin
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                          LACADELYGVIVMPESMVRTVESCWYEGRSFCTFHTCCDVAFCYSSLFHLCFISIDRYIA 133
                                                                                                                                                                    CYANVNGSCVKIPFSPGSRVILYIVFGFGAVLAVFGNLLVMISILHFKQLHSPTNFLVAS
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LNKFWGWLNFPLFFVPCLIMISLYVKIFVVATRQAQQI-TTLSKS---
                                                  ICDPLLYPSKFTVRVALRYILAGWGVPAAYTSLFLYTDVVETRLSQWLEEMPCVGSCQLL 195
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Lowitz, Kevin P.
Pride, Cameron
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US-09-782-974C-84
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US-09-782-974C-84
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SOFTWARE: Pater
SEQ ID NO 84
FENGTH: 345
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Best Local :
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TITLE OF INVENTION: NO. US20030082534A1el G Protein Coupled Receptor FILE REFERENCE: 411USPHRM311
CURRENT APPLICATION NUMBER: US/09/782,974C
CURRENT FILING DATE: 2002-09-04
PRIOR APPLICATION NUMBER: 60/165,838
PRIOR FILING DATE: 1999-11-16
PRIOR APPLICATION NUMBER: 09/714,449
PRIOR FILING DATE: 2000-11-16
PRIOR APPLICATION NUMBER: 60/18,568
PRIOR FILING DATE: 2000-04-20
PRIOR APPLICATION NUMBER: 60/166,071
PRIOR APPLICATION NUMBER: 60/166,071
PRIOR FILING DATE: 1999-11-17
PRIOR FILING DATE: 1999-11-17
PRIOR FILING DATE: 1999-11-17
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PRIOR FILING DATE: 2000-02-22
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PRIOR FILING DATE: 1999-11-19
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                                  196 LNKFWGWLNFPLFFVPCLIMISLYVKIFVVATRQAQQI-TTLSKS-----LAGAAKHE
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                                                                                                                                                                                                                                                                                                                                    Similarity
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                                                                                                                                                     LACADFLVGVTVMPFSMVRTVESCWYFGRSFCTFHTCCDVAFCYSSLFHLCFISIDRYIA 133
                                                                           VTDPLVYPTKFTVSVSGICISVSWILPLMYSGAVFYTGVYDDGLEELSDALNCIGGCQTV 193
                                                                                                  LALADMFLGLLVLPLSTIRSVESCWFFGDFLCRLHTYLDTLFCLTSIFHLCFISIDRHCA 135
                                                                                                                                                                                                                                  CYANVNGSCVKIPESPGSRVILYIVEGEGAVLAVEGNLLVMISILHERQLHSPTNELVAS
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VNQNWVLTDFLSFFIPTFIMIILYGNIFLVARRQAKKIENTGSKTESSSESYKARVARRE
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                                                                                                                                                                                                                                                                                                              44.1%; Score 786.5; DB 11;
44.2%; Pred. No. 3e-63;
Live 70; Mismatches 105;
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US-09-995-225-10
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CURRENT FILING DATE: 2001-11-26
PRIOR APPLICATION NUMBER: 09/170,496
PRIOR FILING DATE: 1998-10-13
PRIOR FILING DATE: 1998-10-13
PRIOR PPLICATION NUMBER: 60/253,404
PRIOR PPLICATION NUMBER: 60/253,404
PRIOR FILING DATE: 2000-11-27
PRIOR PPLICATION NUMBER: 60/255,366
PRIOR PPLICATION NUMBER: 60/255,366
PRIOR PPLICATION NUMBER: 60/255,366
PRIOR PPLICATION NUMBER: 60/270,286
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Publication No.
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Best Local
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APPLICANT: Chu, Zhi Liang
APPLICANT: Dang, Huong T.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR FILING DATE: 2001-07-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: 60/
PRIOR FILING DATE: 2001-05-14
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PRIOR APPLICATION NUMBER:
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ORGANISM: Artificial Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 345
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                                                                                                                                           14 CYANVNGSCVKIPFSPGSRVILYIVFGFGAVLAVFGNLLVMISILHFKQLHSPINFLVAS 73
                                                                                                                                                                                                                                    146;
                                                            74 LACADELYGYTYMPFSMYRTYESCWYFGRSFCTFHTCCDVAFCYSSLFHLCFISIDRYIA 133
                                                                                 76 LALADMFLGLLVLPLSTIRSVESCWFFGDFLCRLHTYLDTLFCLTSIFHLCFISIDRHCA 135
                                                                                                                                                                                    17 CY-QVNGSCPRTVHTLGIQLVIYLTCAAGMLIIVLGNVFVAFAVSYFKALHTPTNFLLLS 75
                                                                                                                                                                                                                                                     Similarity
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FYPWFRKAIKVIVTGQVLKNSSATMNLFSE 343
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                                                                                                                                                                                                                               Score 786.5; DB
Pred. No. 3e-63;
70; Mismatches 1
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RESULT 10
US-10-251-852-2
; Sequence 2, Application US/10251852
; Publication No. US/20030119144A1
; GENERAL INFORMATION:
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US-10-225-567A-685
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US-10-225-567A-685
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APPLICANT: LifeSpan Biosciences
APPLICANT: Brown, Joseph P.
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Best Local
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LENGTH: 345
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APPLICANT: Burmer, Glenna C.
APPLICANT: Roush, Christine L.
TITLE OF INVENTION: ANTIGENIC PEPTIDES AND ANTIBODIES FOR G PROTEIN-COUPLED RECEPTORS
FILE REFERENCE: 1920-4-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: 60/257,144
PRIOR FILING DATE: 2000-12-19
NUMBER OF SEQ ID NOS: 2292
SOFTWARE: PatentIn version 3.1
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                                                                                                                                         VNQNWVLTDFLSFFIPTFIMIILYGNIFLVARRQAKKIE \TGSKTESSSESYKARVARRE
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                                                                                                                                                                                                               RKAAKTLGVTVVAFMISWLPYSIDSLIDAFMGFITPACI (EICCWCAYYNSAMNPLIYAL
                                                                                                                                                                                                                                                                                                                                                                                          ICDPLLYPSKFTVRVALRYILAGWGVPAAYTSLFLYTDV/ETRLSQWLEEMPCVGSCQLL 195
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o. US20030113798A1
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44.28; Pred. No. 22
44.28; Pred. No. 22
40e 70; Mismatches
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Pred. No. 3e-63;
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           CURRENT APPLICATION NUMBER: US/09/995,22
CURRENT FILING DATE: 2001-11-26
PRIOR APPLICATION NUMBER: 09/170,496
PRIOR FILING DATE: 1998-10-13
PRIOR APPLICATION NUMBER: PCT/US99/23938
PRIOR FILING DATE: 1998-10-13
PRIOR APPLICATION NUMBER: 60/253,404
PRIOR FILING DATE: 2000-11-27
PRIOR APPLICATION NUMBER: 60/255,366
PRIOR APPLICATION NUMBER: 60/255,366
PRIOR FILING DATE: 2000-12-12
PRIOR FILING DATE: 2000-12-12
                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                      Sequence 14, Application US/09995225 Publication No. US20020193584A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local :
                                                                                                                                                                                                                                                           APPLICANT: Chen, Ruoping
APPLICANT: Chu, Zhi Liang
APPLICANT: Dang, Huong T.
APPLICANT: Lowitz, Kevin I
                                                                                                                                                                                             FILE REFERENCE: AREN-0308
                                                                                                                                                                                                             TITLE OF INVENTION: Endogenous And No. TITLE OF INVENTION: Receptors
                                                                                                                                                                                                                                                  APPLICANT:
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APPLICATION
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                                                                                                                                                                                                                                               Dang, Huong T.
Lowitz, Kevin P.
Pride, Cameron
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PCT/US99/23938

US20020193584A1-Endogenous Versions

of, Huma

60/270,286

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CURRENT APPLICATION NUMBER: US/10/251,852
CURRENT FILING DATE: 2002-09-23
PRIOR APPLICATION NUMBER: 09/781,559
PRIOR FILING DATE: 2001-02-13
PRIOR APPLICATION NUMBER: 09/694,821
PRIOR FILING DATE: 2000-10-24
PRIOR APPLICATION NUMBER: 60/208,929
PRIOR FILING DATE: 2000-06-05
NUMBER OF SEQ ID NOS: 6
SOFTWARE: FastSEQ for Windows Version 4.0
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TITLE OF INVENTION: RECEPTORS, NUCLEIC ACID MOLECULES ENCODING HUMAN GPCR
TITLE OF INVENTION: PROTEINS, AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILE REFERENCE: CL000899-CON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Match 44.18;
Local Similarity 44.28;
                                                                                                                                                                                                                                                                                                                          136 ICDPLLYPSKFTVRVALRYILAGWGVPAAYTSLFLYTDVVETRLSQWLEEMPCVGSCQLL 195
314 FYPWFRKAIKVIVTGQVLKNSSATMNLFSE 343
                                                                                                                                                                                                                    194 VNQNWVLTDFLSFFIPTFIMIILYGNIFLVARRQAKKIENTGSKTESSSESYKARVARRE
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                                                SYQWFRKALKLTLSQKVFSPQTRTVDLYQE 337
                                                                                                           RKAAKTLGVTVVAFMISWLPYSIDSLIDAFMGFITPACIYEICCWCAYYNSAMNPLIYAL 313
                                                                                                                                     RKAAKTLGIVVGIYLLCWLPFTIDTMVDSLLHEITPPLVFDIFIWFAYFNSACNPIIYVF
                                                                                                                                                                                                                                                                       LNKFWGWLNFPLFFVPCLIMISLYVKIFVVATRQAQQI-TTLSKS-----LAGAAKHE 247
                                                                                                                                                                                                                                                                                                                                                                                                                                         LACADFLVGVTVMPFSMVRTVESCWYFGRSFCTFHTCCDVAFCYSSLFHLCFISIDRYIA
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RESULT 12
US-09-791-932-118
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APPLICANT:
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Best Local
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LENGTH: 342
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      FILE REFERENCE: 00325.US1
CURRENT APPLICATION NUMBER: US/09/791,932
CURRENT FILING DATE: 2001-02-23
PRIOR APPLICATION NUMBER: 60/184,305
PRIOR FILING DATE: 2000-02-23
                                                                                       TITLE OF INVENTION:
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PRIOR APPLICATION NUMBER: 60/270,266
PRIOR FILING DATE: 2001-02-20
PRIOR APPLICATION NUMBER: 60/282,032
PRIOR FILING DATE: 2001-04-06
                                                                                                                          APPLICANT:
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NUMBER OF SEQ ID NOS: 67
SOFTWARE: PatentIn version 3.1
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PRIOR FILING DATE: 2001-04-06
PRIOR APPLICATION NUMBER: 60/290,917
PRIOR FILING DATE: 2001-05-14
PRIOR FILING DATE: 2001-05-14
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PRIOR FILING DATE: 2001-04-06
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Local Similarity 43.9%;
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                                                                                                  Kaytes, Paul S.
Ruff, Valerie
Huff, Rita M.
Wood, Linda S.
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                                                                                                                                                                                        Parodi, Luis A.
Hiebsch, Ronald R.
                                                                                                                                                         Lind, Peter
Kaytes, Paul S.
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                                                                        N: NO. US
00325.US1
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SEQ ID NO 118
LENGTH: 342
                                                     GENERAL INFORMATION:
                                                                     Sequence 14, Application US/0995225 Publication No. US20030139588A9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 43.9%; Matches 145; Conservation
APPLICANT: Chen, Ruoping
APPLICANT: Chu, Zhi Liang
APPLICANT: Dang, Huong T.
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PRIOR FILING DATE: 2000
NUMBER OF SEQ ID NOS: 11
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                                                                                                                                                                                                                                        RKAAKTLGVTVLAFVISWLPYTVDILIDAFMGFLTPAYIYEICCWSAYYNSAMNPLIYAL
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Publication No. US20030113798A1

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 67
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PRIOR FILING DATE: 1998-10-13
PRIOR APPLICATION NUMBER: PCT/US99/23938
PRIOR FILING DATE: 1998-10-13
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CURRENT FILING DATE: 2001-11-26
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ENGTH: 342
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APPLICATION NUMBER: 60/290,917
FILING DATE: 2001-05-14
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APPLICATION NUMBER: 60/282,358
FILING DATE: 2001-04-06
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APPLICATION NUMBER: 60/270,266
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FILING DATE: 2001-02-20
APPLICATION NUMBER: 60/282,365
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FILING DATE: 2000-11-27
APPLICATION NUMBER: 60/255,366
FILING DATE: 2000-12-12
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                               SYQWFRKALKLTLSQKVFSPQTRTVDLYQE 337
                                                                                            VSQGWVLIDFLLFFIPTLVMIILYSKIFLIAKQQAIKIETTSSKVESSSESYKIRVAKRE
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FYPWFRKAIKLILSGDVLKASSSTISLFLE 342
                                                                       RKAAKTLGVTVLAFVISWLPYTVDILIDAFMGFLTPAYIY EICCWSAYYNSAMNPLIYAL 312
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43.9%; Pred. No. 3.7e-63;
tive 69; Mismatches 107
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RESULT 14 US-10-225-567A-687 ; Sequence 687, Application US/10225567A

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US-10-330-220-2
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APPLICANT: LifeSpan Biosciences
APPLICANT: Brown, Joseph P.
APPLICANT: Glenna C.
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CURRENT FILING DATE: 2001-12-19
PRIOR APPLICATION NUMBER: 60/257,144
PRIOR FILING DATE: 2000-12-19
NUMBER OF SEQ ID NOS: 2292
SOFTWARE: Patentin version 3.1
SEQ ID NO 687
LENGTH: 342
                                                                            NUMBER OF SEQ ID NOS: 4
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 44.0%;
Best Local Similarity 43.9%;
Matches 145; Conservative 6
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                                                                                                                                                                                                                                                                                                                                                                                  Sequence 2, Application US/10330220 Publication No. US20030113789A1
                                                                                                                                                                                                                                                   APPLICANT: Wang et al.
TITLE OF INVENTION: RECEPTORS, NUCLEIC ACID MCLECULES ENCODING HUMAN GPCR
TITLE OF INVENTION: PROTEINS, AND USES THEREOF
FILE REFERENCE: CL0007555CON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Brown, Joseph P.
APPLICANT: Burmer, Glenna C.
APPLICANT: Roush, Christine L.
TITLE OF INVENTION: ANTIGENIC PEPTIDES AND ANTIBODIES FOR
                                                                                                                                       PRIOR APPLICATION NUMBER: PRIOR FILING DATE: 2000-03
                                                                                                                                                                               PRIOR APPLICATION NUMBER: US 09/637,603 PRIOR FILING DATE: 2000-08-15
                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/10/330,220 CURRENT FILING DATE: 2002-12-30
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                                   LENGTH: 34
TYPE: PRT
                ORGANISM: HOMO SAPIEN
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                                                                                                                                                        US 60/192,326
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; Pred. No. 3.7e-63;
69; Mismatches 107;
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Search completed: August 26, 2003, 14:25:53 Job time: 26 secs
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Perfect score:
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re greater than or equal to the score of the result being printed,
is derived by analysis of the total score distribution.
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1: /SIDS1/gcgdata/gei
2: /SIDS1/gcgdata/gei
3: /SIDS1/gcgdata/gei
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acid trace G-pro G	Human AXOR 106 amine Amino acid sequence Human ngPCR40 #2. Human G protein-co Human G protein co Human G protein co Human G-protein co Human G-protein co Human G-protein co Amino acid sequenc Human G-protein co Amino acid sequenc Human G-protein co Human G-protein co Human G-protein co Human G-protein co Amino acid sequenc

### ALIGNMENTS

RESULT 1
AAW09110
ID AAW0

AAW09110 standard; Protein; 337

A.

AAW09110;

PT XXX DNA encoding human amine receptor - used to identify agonists and antagonists, or amine neurotransmitters  $% \left( 1\right) =\left\{ 1\right\} =$ WPI; 1997-043075/04. N-PSDB; AAT51051. Li Y, (HUMA-) HUMAN GENOME SCI INC 06-JUN-1995; 06-JUN-1995; MO9639440-A1 Homo sapiens. 12-DEC-1996. Ruben SM; 95WO-US07221 95WO-US07221

Amine receptor; 7-transmembrane receptor; neurotransmitter; signal transduction; therapy; diagnosis; agonist; antagonist.

Human amine receptor. 05-APR-1997 (first entry)

Amino

sequenc

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RESULT 2
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Best Local Similarity
Matches 337; Conserv
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                WPI; 1999-429497/36.
N-PSDB; AAX81288.
                                                                                                                                                                                                 US5928890-A.
                                                                                                                                                                                                                                                                                    Human amine receptor polypeptide.
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ilarity 100.0%;
Conservative
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                                                                                     GENOME SCI INC
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Pred. No. 1.5e-186;
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                                         WPI; 2002-635676/68.
N-PSDB; ABQ78643.
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19-MAY-1999;
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99US-0314006
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Novel human amine receptor polypeptide useful

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    2003-201449/19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Transgenic mice comprising disruptions in a putative neurotransmitter receptor (PNR) gene, useful as models for studying diseases associated with a disruption in a PNR gene, or for identifying agents for treating
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Pred. No. 1.5e-186;
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Amino acid sequence of a protein 43% identical to human TA5 receptor.

Human; trace amine receptor; TA5 receptor; G protein-coupled receptor; GPCR; chromosome 6; haematological disorder; CNS disorder; asthma; chronic obstructive pulmonary disease; COPD; cardiovascular disorder; gastrointestinal disorder; cancer; diabetes; obesity; genitourinary disorder

Homo sapiens

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RESULT 6
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                                                                    04-MAR-2003
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17-APR-2002;
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 protein-coupled
protein-coupled
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DB; ABZ23221.
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                                                                                                                        standard;
                                                                                                                                                                                                       NPIIYVESYQWERKALKLTLSQKVESPQTRTVDLYQE
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                                                                                                                                                                                                                                                                                               QWLEEMPCVGSCQLLLNKFWGWLNFPLFFVPCLIMISLYVKIFVVATRQAQQITTLSKSL
                                                                                                                                                                                                                                                                                                            QWLEEMPCVGSCQLLLNKFWGWLNFPLFFVPCLIMISLYVKIFVVATRQAQQITTLSKSL
                                                                                                                                                                                                                                                                                                                                                   SIFHLCFISIDRHCAICDPLLYPSKFTVRVALRYILAGWGVPAAYTSLFLYTDVVETRLS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         MRAVFIQGAEEHPAAFCYQVNGSCPRTVHTLGIQLVIYLTCAAGMLIIVLGNVFVAFAVS
                                                                                                                                                                                                                                            AGAAKHERKAAKTLGIVVGIYLLCWLPFTIDTMVDSLLHFITPPLVFDIFIWFAYFNSAC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Page 153-154; 154pp;
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                                                                    (first
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2002US-372809P
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                                       neurotransmitter receptor protein
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receptor; GPCR; antigenic peptide; gene therapy;
receptor modulator; antibody; immune-related disease;
                                                                                                                        Protein;
                                                                 entry)
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Pred. No. 1.5e-186;
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61 61

MRAVFIQGAEEHPAAFCYQVNGSCPRTVHTLGIQLVIYLTCAAGMLIIVLGNVFVAFAVS MRAVFIQGAEEHPAAFCYQVNGSCPRTVHTLGIQLVIYLTCAAGMLIIVLGNVFVAFAVS

60

Query Match Best Local Similarity

100.0%;

Sequence

337

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Matches

Conservative

<u>,</u>

Score 1785; DB 24; Pred. No. 1.5e-186; Mismatches 0;

Indels Length

0

337; 0

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The present invention describes antigenic peptides (I) comprising:

(C (a) any one of 1601 sequences (see ABB82019 to ABB83619) of 12-24 amino CC acids. Also described: (1) an assay for the detection of a particular CC grotein-coupled receptor (GPCR) or a candidate polypeptide in a sample; CC and (2) an isolated antibody having high specificity and high affinity CC articles for a particular GPCR. (I) can be used as GPCR modulators and CC in gene therapy. The antigenic peptides for GPCRs are useful in detecting CC antibodies. The peptides and antibodies are also useful for detecting the CC presence or absence of corresponding GPCRs. The antigenic peptides for GPCRs and antibodies are useful for diagnosing and designing drugs for CC treating immune-related diseases, growth-related diseases, cell cc diseases, or autoimmune diseases, synwth-related diseases, cell cregeneration-related diseases, e.g. AIDS, Alzheimer's disease, CC atherosclerosis, bacterial, fungal, protozoan or viral infections, CC atherosclerosis, bacterial, fungal, protozoan or viral infections, CC atherosclerosis, bacterial, fungal, protozoan or viral infections, CC disease, Parkinson's disease, multiple sclerosis, pain, psoriasis, canxiety, depression, schizophrenia, dementia, mental retardation, memory CC cost, epilepsy, asthma, tuberculosis, obesity, nausea, hypertension, composity and immunociagnosis. ABI42523 to ABI4269 encode CC used in immunosassys and immunociagnosis. ABI42533 to ABI4269 encode CC GPCR proteins given in ABB91675 to ABB92018, which are used in the CC exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       growth-related disease; cell regeneration-related disease; AIDS; cance immunological-related cell proliferative disease; autoimmune disease; Alzhelmer's disease; atherosclerosis; infection; osteoarthritis; aller osteoporosis; carddomyopathy; inflammation; Crohn's disease; diabetes; graft versus host disease; Parkinson's disease; multiple sclerosis; pa psoriasis; anxiety; depression; schizophrenia; dementia; memory loss; mental retardation; epilepsy; asthma; tuberculosis; obesity; nausea; hypertension; hypotension; renal disorder; rheumatoid arthritis; traum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New isolated antigenic peptides (GPCR), useful for diagnosing ar conditions in which GPCRs are in
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)B; ABZ42784.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       disease,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              trauma;
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RESULT 7
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      The invention provides a human G-protein coupled receptor (GPCR). The CG GPCR is useful as target for identifying specific modulators and thinding agents, potentially useful as human therapeutic agents, caspecially for control of diseases in which GPCR is implicated, and for production of specific antibodies (Ab), or to elicit other immune cresponses. GPCR may be used as reagents for determination of the level of GPCR or its binding partners, as tissue marker, as therapeutics and cor of GPCR, and for determination of GPCR, in diagnosis and monitoring. Ab GPC are useful or pharmacogenomic studies. Ab are useful for isolation and purification of GPCR, and for determination of GPCR, in diagnosis and monitoring. Ab GPC are useful measurements of GPCR, in diagnosis are useful for recombinant expression of the protein, and as source of primers and grobulators (for diagnosis) and of antisense sequences and ribozymes (for therapy). They can be used for identifying modulators of its expression, construction of gene therapy vectors and preparing constitutions. The present sequence represents a human putative
                                                                                                                                                                                                                                                                                                                             New human G-protein coupled receptor, useful modulators, potential therapeutic agents, is neurotransmitter receptor family -
                                                                                                                                                                                                                                                                                                                                                                                           WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                       Wang
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15-AUG-2000;
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Best Local
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19-JAN-2001;
23-JAN-2001;
24-JAN-2001;
25-JAN-2001;
25-JAN-2001;
26-JAN-2001;
30-JAN-2001;
30-JAN-2001;
14-MAR-2001;
14-MAR-2001;
15-MAR-2001;
                                                                                                                                                                                   Hepatotropic; immunosuppressive; cardiant; hypertensive; tranquilizer; vulnerary; virucide; antibacterial; protozoacide; fungicide; nostropic; antiparasitic; neuroprotective; cerebroprotective; antiparkinsonian; anticonvulsant; antiaddictive; analgesic; dermatological; keratolytic; antiseborrheic; antirheumatic; antiarthritic; antiinflammatory; anti-HIV; cytostatic; antiasthmatic; antipsoriatic; hypotensive; osteopathic; antiulcer; anorectic; antidiabetic; antiallergic; haemostatic; neuroleptic; antidepressant; antiinfertility; NOVX; human disease; NOVX-associated disorder; trauma; viral; bacterial; fungal; protozoal; parasitic infection; Alzheimer's disease; stroke; forensic biology;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                            Unidentified.
                                                                                                                                                                                                                                                                                                                        АВJ37891;
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                                                                                                                                           WO200281517-A2
                                                                                                                                                                                                                                                                                     NOVX protein sequence
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                                                                                                        22-JAN-2002;
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2001US-262892P.
2001US-263598P.
2001US-264117P.
2001US-264139P.
2001US-264478P.
2001US-263351P.
2001US-275970P.
2001US-275970P.
2001US-275990P.
2001US-275990P.
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                                                                                                        2002WO-US02064
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                                                                                                                                                                                                                                                                                                                                        Protein;
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                                                                                                                                                                             transgenic
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CC polypeptide and polynucleotide, by measuring the level of polypeptide cexpression or the amount of nucleic acid from a mammal and comparing it compression or the amount of nucleic acid from a mammal and comparing it complete the expression was a seful for identifying an agent that binds to NOVX cc and a cell expression NOVX is useful for identifying an agent that that the cappetide having 95 % sequence identity to NOVX. The antibodies and a cc polypeptide having 95 % sequence identity to NOVX of polypeptide are useful for treating a pathological state in a mammal. The antibodies are also cc useful for determining the presence or amount of NOVX in a sample. NOVX cc useful for determining the presence or amount of NOVX in a sample. NOVX cc polypeptides are useful for treating or preventing disorders or syndromes including trauma, viral, bacterial, fungal, protozoal, and parasitic infections. They can also treat disorders such as e.g., Alzheimer's cd isease or a stroke. The NOVX encoding nucleic acids are useful for cexpressing the NOVX proteins, to detect NOVX mRNA, or a genetic lesion in a NOVX gene and to modulate NOVX activity. NOVX sequences are also useful for identifying a cell or tissue type in a biological sample, to amplify that or skin or body fluids in forensic biology and as primers and probes contained to the nove of the second of the contained of the nove of the contained of the nove of the contained of the nove of the 
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antibodies which are useful for diagnostically monitoring protein levels and modulating NOVX activity. Cells comprising NOVX nucleic acids are useful for producing non-human transgenic animals which are useful for studying the function and/or activity of NOVX protein and for identifying and/or evaluating modulators of NOVX protein activity. The NOVX nucleic
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                    06-APR-1999;
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Matches 152
AXOR 106; GPCR; G-Protein Coupled receptor; antibacterial; antifungal; antiviral; antiprotozoal; anti-HIV; analgesic; cylostatic; antidiabetic; anorectic; anabolic; antiasthmatic; antiparkinson.an; cardiant;
                                                                                                                                                                          ABB98168 standard;
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                                                                    Human AXOR 106
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                                                                                                     (first entry)
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                                                                    amino
                                                                                                                                                                            Protein;
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                                                                    acid
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                                                                   sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  64;
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Pred. No. 3.9e
64; Mismatches
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248

RKAAKTLGIVVGIYLLCWLPETIDTMVDSLLHFITPPLVFDIFIWFAYFNSACNPIIYVF

LNKFWGWLNFPLFFVPCLIMISLYVKIFVVATRQAQQI-TTLSKSLAGA-----AKHE

247

193

307

194

134

LACADFLYGYTYMPFSTYRSYESCWYFGDSYCKFHTCFDTSFCFASLFHLCCISVDRYIA LALADMFLGLLVLPLSTIRSVESCWFFGDFLCRLHTYLDTLFCLTSIFHLCFISIDRHCA CYKNVNESCIKTPYSPGPRSILYAVLGFGAVLAAFGNLLVMIAILHFKQLHTPTNFLIAS CYO-VNGSCPRTVHTLGIQLVIYLTCAAGMLIIVLGNVFVAFAVSYFKALHTPTNFLLLS

135 73

74

76 14 17 Matches

Similarity

Conservative

64;

Mismatches

105;

Indels

9

Gaps

.9e-80

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The invention relates to a polypeptide designated AXOR, which is a member of the G-protein coupled 7 trans-membrane receptor family. The activity of the polypeptide of the invention may be described as, antibacterial, antifungal, antiviral, antiprotozoal, anti-HIV, analgesic, cytostatic, antidiabetic, ancrectic, anabolic, antiasthmatic, antiparkinsonian, cc cardiant, hypertensive, hypotensive, diuretic, osteopathic, antianginal, cerebroprotective, antiulcer and antiallergic. Polynucleotides of the CC invention can be used to treat diseases including bacterial, fungal, cc protozoan and viral infections, human immunodeficiency virus, (HIV-1, HIV-2), pain, cancers, diabetes, obesity, anorexia, bulimia, asthma, CC Parkinson's disease, acute heart failure, hypotension, hypertension, curinary retention, osteoporosis, angina pectoris, myocardial infarction, cc troke, ulcers, and allergies. Polypeptides and polynucleotide may also be used in vaccines. The polypeptide may be used in low capacity corrent sequence represents the AXOR 106 amino acid sequence.
 Query Match
Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  hypertensive; hypotensive; diuretic; osteopathic; antianginal; cerebroprotective; antializer; antialergic; human; bacterial; fungal; protozoan; viral; infection; human immunodeficiency virus; HIV-1; HIV-2; pain; cancers; diabetes; obesity; anorexia; bulimia; asthma; parkinson's disease; acute heart failure; hypotension; hypertension; urinary retention; osteoporosis; angina pectoris; myocardial infarction; stroke; ulcer; allergy; vaccine; screening; GPR57.
                                                                                                                                                                                                                                                                                                                                                                                                              New G-protein coupled receptor protein, useful for developing diagnostic reagents and for treating viral infections, pain, diabetes, and development of vaccines -
                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                 Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Shabon
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BEECHAM
45.5%;
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Score 812.5;
Pred. No. 3.9
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The present invention describes antigenic peptides (I) comprising:

((a) any one of 1601 sequences (see ABP82019) to ABP83619) of 12-24 amino acids. Also described: (1) an assay for the detection of a particular control of a protein-coupled receptor (GPCR) or a candidate polypeptide in a sample; and (2) an isolated antibody having high specificity and high affinity cor avidity for a particular GPCR. (I) can be used as GPCR modulators and in gene therapy. The antigenic peptides for GPCRs are useful in detecting an antibody against a particular GPCR, and in the production of specific antibodies. The peptides and antibodies are also useful for detecting the presence or absence of corresponding GPCRs. The antigenic peptides for GPCRs and antibodies are useful for diagnosing and designing drugs for treating immune-related diseases, growth-related diseases, cell cregeneration-related diseases, growth-related diseases, cell can therosclerosis, bacterial, fungal, protozoan or viral infections, costeoarthritis, osteoporosis, cancer, cardiomyopathy, chronic and acute inflammation, allergies, Crohn's disease, dhealth, mental retardation, memory anxiety, depression, schizophrenia, dementia, mental retardation, memory and acute beneficians.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g protein-coupled receptor modulator; antibody; immune-related disease; growth-related disease; cell regeneration-related disease; AIDS; cancer; immunological-related cell proliferative disease; autoimmune disease; Alzheimer's disease; atherosclerosis; infection; osteoarthritis; allergy; osteoporosis; cardiomyopathy; inflammation; Crohn's disease; diabetes; graft versus host disease; Parkinson's disease; multiple sclerosis; pain; psoriasis; anxiety; depression; schizophrenia; dementia; memory loss; mental retardation; epilepsy; asthma; tuberculosis; obesity; nausea; hypertension; hypotension; renal disorder; rheumatoid arthritis; trauma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                New isolated antigenic peptides e.g., for G protein-coupled receptors (GPCR), useful for diagnosing and designing drugs for treating conditions in which GPCRs are involved, e.g. AIDS, Alzheimer's disease, cancer or autoimmune diseases
                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure;
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DB; ABZ42581.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    receptor; GPCR; antigenic peptide; gene therapy receptor modulator; antibody; immune-related di
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                                                                                                                                                                                                                                                                                                                                                                                   Key
                                                          US6117990-A.
                                                                                                                                                                                                     Domain
                                                                                                                                                                                                                                            Domain
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al disorder.
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101..118
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138..159
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Pred. No. 3.
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313 307 253 247 193 195 133 73

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RESULT 11
ABB81735
ID ABB87
ID AB

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RESULT 13
AAG80970
ID AAG80
XX
AC AAG80
XX
DT 28-AU
XX
DE Human
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         species and to detect the existence of nucleic axids having complementary sequences in samples. The nucleic acids may also be used to express the receptors they encode in transfected cells. Also use of the receptor encoded by the SNORF1 receptor nucleic acid sequence enables the discovery of the endogenous ligand and to elucidate the role of the SNORF1 receptor. The receptor may be employed for designing drugs for treating various pathophysiological conditions such as chronic and acute inflammation, arthritis, autoimmune diseases, transplant rejection, bacterial and fungal infections, AIDS, pain, psychotic and neurological disorders. Transfected cells with the receptor may be used to test compounds which bind to the receptor and which activate or inhibit the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New recombinant nucleic acid molecules, with sequences identical human and rat SNORF1 receptor-encoding nucleic acid molecules and possessing the structural motif characteristics of a G-protein
             Human nGPCR40 #2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Fig 4A-B; 19pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bonini JA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-APR-1999;
                                           28-AUG-2001
                                                                          AAG80970
                                                                                                      AAG80970 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (SYNA-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            present sequence represents a SNORF1 recepto:: The SNORF1 nucleic is may be used a probes to obtain homologous nucleic acids from oti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000-610854/58
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAA75825
                                                                                                                                                                                                                                                                                              FYPWFRKAIKLIVSGKVFRADSSRTNLFSE 333
                                                                                                                                                                                                          SYQWFRKALKLTLSQKVFSPQTRTVDLYQE 337
                                                                                                                                                                                                                                       RKAAKTLGIVVGIYLLCWLPFTIDTMVDSLLHFITPPLVIDIFIWFAYFNSACNPIIYVF
                                                                                                                                                                                                                                                                                                                LNKFWGWLNFPLFFVPCLIMISLYVKIFVVATRQAQQIT-TLSKSLAGA------
                                                                                                                                                                                                                                                                                                                                                                                ICDPLLYPSKFTVRVALRYILAGWGVPAAYTSLFLYTDV\ETRLSQWLEEMPCVGSCQLL 195
                                                                                                                                                                                                                                                                                                                                                                                                                    LACADELVGVTVMPESTVRSVEGCWYFGDTYCKFHTCFD; SFCFASLFHLCCISIDRYVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                 LALADMFLGLLVLPLSTIRSVESCWFFGDFLCRLHTYLD) LFCLTSIFHLCFISIDRHCA 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CYENVNGSCIKSSYSPWPRAILYAVLGLGALLAVFGNLLV:TTAILHFKQLHTPTNFLVAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CYQ-VNGSCPRTVHTLGIQLVIYLTCAAGMLIIVLGNVFYAFAVSYFKALHTPTNFLLLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   338 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 responses.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                           (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US-0286805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99US-0286805
                                                                                                      Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        44.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; Score 795.5; DB 21; pred. No. 2.7e-78; 64; Mismatches 107;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  G-protein
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to express the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      338;
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CC disorder affecting the brain or a genetic predisposition, specifically schizophrenia. nGPCRx are useful for identifying compounds useful for treating schizophrenia. Detection of nGPCRx in a sample is useful as a cd diagnostic tool for diseases or disorders e.g. thyroid disorders, renal cf allure, rheumatoid arthritis, CNS disorders, infections such as HIV-1, metabolic and cardiovascular diseases, proliferative disorders and creating neurological disorders, including schizophrenia, ADHD/ADD cartention deficit-hyperactivity disorder/attention deficit disorders, including schizophrenia, ADHD/ADD cartention deficit-hyperactivity disorder/attention deficit disorders. CC migraine and senile dementia. Additional disorders include inflammatory conditions (e.g. Crohn's disease), rheumatoid arthritis, autoimmune cc disorders, cancers, respiratory ailments such as asthma, and inflammatory bowel disease e.g. inflammatory bowel disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-NOV-1999
28-DEC-1999
22-FEB-2000
28-FEB-2000
28-FEB-2000
02-MAR-2000
03-MAR-2000
09-MAR-2000
17-MAR-2000
21-MAR-2000
21-MAR-2000
02-MAY-2000
03-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g protein-coupled receptor; nGPCR; seven transmembrane receptor; signal transduction; schizophrenia; thyroid disorder; renal failure; rheumatoid arthritis; CNS disorder; infection; metabolic disease; cardiovascular disease; proliferative disorder; hormonal disorder; neurological disorder; neuronal disorder; Alzheimer's disease; cance attention deficit-hyperactivity disorder/attention deficit disorder; parkinson's disease; migraine; senile dementia; inflammatory disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Vogeli G,
Schellin
                                                                                                                                                                                                                                                                                    The present invention relates to novel G protein-coupled receptors (nGPCEK; where x is 1, 3, 4, 5, 9, 11, 12, 14-18, 20, 21, 22, 24, 27, 28, 31-38, 40, 41, 53-60) and their coding sequences. The present sequence is one such G protein-coupled receptor. GPCRs are also known seven transmembrane receptors and function in signal transduction. The
                                                                                                                                                                                                                                                                                                                                                                                          Claim 37; Page 91; 261pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-PSDB;
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17-NOV-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     neuroprotective.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rheumatoid arthritis; autoimmune disorder; respiratory
                                                                                                                                                                                                                                                                                                                                                                                                                             New G protein-coupled polynucleotide useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-MAY-2001
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DB; AAH51010.
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2000US-0185421
2000US-0185534
2000US-0186530
2000US-0186811
2000US-0190310
2000US-0190310
2000US-0190310
2000US-0190800
2000US-0190800
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990S-0166071
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PS, Bannig
                                                                                                                                                                                                                                                                                                                                                                                                                          receptor (nGPCR-x) for diagnosing and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                li LA, Hiebsch RR, Li
Bannigan CM, Ruff V,
                                                                                                                                                                                                                                                                                                                                                                                                                                              and
                                                                                                                                                                                                                                                                                                                                                                                                                            treating e.g. schizophrenia
                                                                                                                                                                                                                                                                                                                                                                                                                                              its encoding
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V, Sejlitz T, Hu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tom J;
Huff RM;
                                                inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cancer;
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Query Match Best Local Similarity

44.18; 44.28;

Score 786.5; DB 2 Pred. No. 2.7e-77;

22;

Length

Sequence

345

8

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RESULT 14
ABG93788
ID G95788
ID G9578
AC ABG93
AC ABG93
XX ABG93
XX ABG93
XX ABG93
XX Human
KW Human
KW ITANC
KW ANXLE
KW HOMO
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                                    The invention discloses an isolated human polypeptide, and encoding nucleic acid, for a G protein-coupled receptor (GPCR), particularly nG protein coupled receptor-14 (nGPCR-14). GPCRs are vital in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; receptor; G protein-coupled receptor; GPCR; nGPCR; beGPCR; nG protein coupled receptor; communication; serpentine structure; seven transmembrane receptor; 7TM; mental disorder; diagnosis; genetic predisposition; brain; immune response; gene therapy; anxiety disorder; depression; bipolar disorder; schizophrenia; Huntington's disease; dyskinesia; manic depression; stroke;
                                                                                                                                                                                       New nucleic acids and polypeptides of the nG protein-coupled receptor, useful for treating or diagnosing a mental disorder or a disorder affecting the brain, e.g. anxiety disorders, schizophrenia, stroke or parkinson's disease
                                                                                                                                          Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-FEB-2001; 2001WO-US04641.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Parkinson's disease; Alzheimer's disease;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                (PHAA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-FEB-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein-coupled receptor protein,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FYPWFRKAIKVIVTGQVLKNSSATMNLFSE 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TIDPLYYPTKFTVSVSGICISYSWILPLMYSGAVFYTGYYDDGLEELSDALNCIGGCQTV
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                                                                                                                                        Page
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                                                                                                                                                                                                                                                                                                                                                                                                                                             UPJOHN
                                                                                                                                     244pp;
                                                                                                                                                                                                                                                                                                                                                                                              Vogeli G,
                                                                                                                                                                                                                                                                                                                                                                                                                                             ၀
                                                                                                                                     English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                70;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          diabetes;
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CC animal The nucleic acid or polypeptide is particularly useful, using gene therapy, for treating e.g. anniety disorders, depression, bipolar compounds. The sequences presented in ABG3747-ABG3793, conception and ABG3747-ABG3793, and conception and ABG3747-ABG3793, and and conception are the nGPCR (also referred to as beGPCRs)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
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                                                       circulatory disease; hypertension; atherosclerosis; inflammatory disease, allergy; rheumatism; respiratory disease; asthma; bronchitis; pneumonia; digestive disease; stomach ulcer; duodenal ulcer; immune disorder; AIDS;
                                                                                                                                neuroleptio; vasotropio; hypotensive; antinflammatory; antidiabetio; immunosuppressive; antibacterial; nephrotropio; cytostatio; anorexia; signal transmission; central nervous system disease; Alzheimer's disease; dementia; metabolio disease; diabetes; hyperlipaemia; cancer; angina;
                                    autoimmune
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146; Conser
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                                                                                                                                                                                                                                                                                     protein-coupled receptor TGR36 protein SEQ
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Pred. No. 2.7e
70; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present sequence represents a human G protein-coupled receptor C protein designated TGR36 (I), which is expressed in human kidney. (I) C has nootropic, neuroleptic, vasotropic, hypotens. (v) antidiabetic, immunosuppressive, antiviral, antilacterial, nephrotropic c antidiabetic, immunosuppressive, antiviral, antilacterial, nephrotropic c inhibition of signal transmission mediated by TGR31 and associated with C a broad range of disorders. (I) is useful for treatment, prevention and CC diagnosis of central nervous system diseases (such as Alzheimer's CC disease, anorexia and dementia), metabolic diseases (such as diabetes and hyperlipaemia), cancer (such as non-small cell lung cancer, ovarian CC circulatory diseases (such as hypertension, atheroscis and angina), CC inflammatory diseases (such as hypertension, atheroscis and angina), CC circulatory diseases (such as allergy and rheumitism), respiratory CC diseases (such as asthma and bronchitis), digestive diseases (such as autoimmune CC circulatory diseases (such as allergy and rheumitism), respiratory CC diseases (such as asthma and bronchitis), digestive diseases (such as autoimmune CC circulatory diseases (such as allergy and rheumitism), respiratory CC diseases (such as asthma and bronchitis), digestive diseases (such as autoimmune diseases), and infections (such as AIDS, pneumonia and influenza).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 44.28;
Matches 146; Conservation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       G-protein coupled receptor protein expressed in human kidney for design of drugs and reagents for treatment and diagnosi; of a broad range of diseases including cancer -
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30-MAR-2001; 2001JP-0102559.
04-APR-2001; 2001JP-0105435.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31-JAN-2002; 2002WO-JP00773
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DB; ABQ74527, ABQ74530
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                                                                                                    RKAAKTLGIVVGIYLLCWLPFTIDTMVDSLLHFITPPLVFDIFIWFAYFNSACNPIIVVF 307
                                                                                                                                                                                                                                                                                                                 FYPWFRKAIKVIVTGQVLKNSSATMNLFSE 343
                                       SYQWFRKALKLTLSQKVFSPQTRTVDLYQE 337
                                                                             RKAAKTLGVTVVAFMISWLPYSIDSLIDAFMGFITPACIYEICCWCAYYNSAMNPLIYAL
                                                                                                                                                          VNQNWVLTDFLSFFIPTFIMIILYGNIFLVARRQAKKIENTGSKTESSSESYKARVARRE
                                                                                                                                                                                 LNKFWGWLNFPLFFVPCLIMISLYVKIFVVATRQAQQI-TTLSKS------LAGAAKHE 247
                                                                                                                                                                                                                                                            345 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  70; Mismatches 105; Indels 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 786.5; DB 23; Pred. No. 2.7e-77;
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1: pir1:*
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Match
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### ALIGNMENTS

neurotransmitter receptor - human (2.Species: Homo saplens (man) (2.Species: Homo saplens (man) (2.Species: Homo saplens (man) (2.Species: 10-Feb-1998 #sequence\_revision 13-Mar-1998 #text\_change 24-Nov-1999 (2.Accession: JC5832 (2.Fan, P.; Rand, E.; Kyaw, H.; Su, K.; Madike, V.; Carter, K.C.; Li, Y. R; Zeng, Z.; Fan, P.; Rand, E.; Kyaw, H.; Su, K.; Madike, V.; Carter, K.C.; Li, Y. Biochem. Biophys. Res. Commun. 242, 575-578, 1998 A; Title: Cloning of a putative human neurotransmitter receptor expressed in skeletal A; Reference number: JC5832; MUID:98125534; PMID:9464258

A;Map position: 6q23
C;Superfamily: vertebrate rhodopsin
C;Reywords: glycoprotein; receptor; transmembrane protein
F;29-63/Domain: transmembrane #status predicted <TM1>
F;69-95/Domain: transmembrane #status predicted <TM2>
F;114-118/Domain: transmembrane #status predicted <TM3>
F;149-173/Domain: transmembrane #status predicted <TM4>
F;169-200/Domain: transmembrane #status predicted <TM5>
F;169-200/Domain: transmembrane #status predicted <TM5>
F;204-229/Domain: transmembrane #status predicted <TM6>
F;253-310/Domain: transmembrane #status predicted <TM6>
F;253-310/Domain: transmembrane #status predicted <TM6>
F;253-310/Domain: transmembrane #status predicted <TM6> A; Molecule type: mRNA A; Residues: 1-337 < ZENA A; Cross-references: GB:AF021818; NID:g2465431; PIDN:AAC39581.1; PID:g2465432 A; Experimental source: brain C; Genetics: 밁 Ş 밁 ΩV ₽ δ 밁 Ş 밁 Š Query Match Best Local Matches 241 181 181 121 121 Similarity AGAAKHERKAAKTLGIVVGIYLLCWLPETIDTMVDSLLHFITPPLVFDIFIWFAYFNSAC AGAAKHERKAAKTLGIVVGIYLLCWLPFTIDTMVDSLLHFITPPLVFDIFIWFAYFNSAC 100.0%; ilarity 100.0%; Conservative 0 0 Score 1785; Pred. No. 4. Mismatches 4.6e-143; DB 2; Length Indels 337; 0, Gaps 180 240 180 120 120 300 240 60 60

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C;Species: Rattus norvegicus (Norway rat)
C;Date: 10-Oct-1995 #sequence_revision 03-Nov-1995 #text_change 26-Aug-1999
C;Accession: S5550
R;Gerald, C.; Adham, N.; Kao, H.T.; Olsen, M.A.; Laz, T.M.; Schechter, L.E.; Bard, J.A.
EMBO J. 14, 2806-2815, 1995
A;Pitle: The 5-HT(4) receptor: molecular cloning and pharmacological characterization
A;Reference number: S55549; MUID:95317299; PMID:7796807
A;Accession: S55550
A;Accession: S55550
                                                                                                                                                                   serotonin 4 receptor - rat

N;Alternate names: 5-HT receptor 4L
C;Species: Rattus norvegicus (Norway rat)
C;Date: 10-Oct-1995 #sequence_revision 03-Nov-1995 #text_change 24-Nov-1999
C;Accession: S55549; S66494
R;Gerald, C.; Adham, N.; Kao, H.T.; Olsen, M.A.; Laz, T.M.; Schechter, L.E.; Bard, J.A
EMBO J. 14, 2806-2815, 1995
A;Title: The 5-HT(4) receptor: molecular cloning and pharmacological characterization
A;Reference number: S55549; MUID:95317299; PMID:7796807
A;Accession: S55549
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A;Residues: 1-387 <GER>
A;Cross-references: GB:U20906; NID:g924638; PIDN:AAC52232.1;
C;Superfamily: vertebrate rhodopsin
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S55550
5-HT4S receptor -
                 A;Cross-references: GB:U20907; NID:g924640; PIDN:AA R;Ullmer, C.; Schmuck, K.; Kalkman, H.O.; Luebbert, FEBS Lett. 370, 215-221, 1995
A;Title: Expression of serotonin receptor mRNAs in A;Reference number: S66487; MUID:95385798; PMID:765A;Accession: S66494
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                               nRNAs in blood
PMID:7656980
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LALADMFLGLLVLPLSTIRSVESCWFFGDFLCRLHTYLDTLFCLTSIFHLCFISIDRHCA 135
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J

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A; Molecule type: DNA
A; Residues: 1-359 <TRA>
A; Residues: 1-359 <TRA>
A; Residues: 1-359 <TRA>
C; Comment: Histamine, a messenger molecule in cell-to-cell communication, affe cycomment: Histamine, a messenger molecule in cell-to-cell communication, affectived receptor subtypes named H1, H2 and H3.
C; Superfamily: vertebrate rhodopsin
C; Keywords: glycoproteln; phosphoprotein; receptor; transmembrane protein
F; 22-65/Domain: transmembrane #status predicted <TMM2>
F; 58-81/Domain: transmembrane #status predicted <TMM3>
F; 136-157/Domain: transmembrane #status predicted <TMM5>
F; 179-204/Domain: transmembrane #status predicted <TMM5>
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F; 269-289/Domain: transmembrane #status predicted <TMM7>
F; 269-289/Domain: status predicted <TM7>
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F; 269-289/Domain: transmembrane #status predicted <TM7>
F; 269-289/Domain: status predicted <TM7>
F; 269-289/Domain: transmembrane #status predicted <TM8>
F; 269-289/Domain: tra
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R;Tralifort, E.; Vizuete, M.L.; Tardivel-Lacombe, J.; Souil, B;Tralifort, E.; Vizuete, M.L.; Tardivel-Lacombe, J.; Souil, B;Ochem. Biophys. Res. Commun. 211, 570-577, 1995
A;Title: The guinea pig histamine H2 receptor: gene cloning, A;Reference number: JC4120; MUID:95314628; PMID:7794271
A;Accession: JC4120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           histamine H2 receptor - guinea pig
C:Species: Cavia porcellus (guinea pig)
C:Date: 27-Aug-1995 #sequence_revision 19-Oct-1995 #text_change 24-Nov-1999
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A; Residues: 95-259 <UILL>
A; Cross-references: EMBL: Z48153; NID: 9984171;
A; Experimental source: tissue brain
C; Superfamily: vertebrate rhodopsin
C; Keywords: neurotransmitter receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          33 IQLVIYLT-CAAGMLIIVLGNVFVAFAVSYFKALH-TPTNFLLLSLALADMFLGLLVLPL 90
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17 VEKVVLLTFFAMVILMAILGNLLVMVAVCRDRQLRKIKTNYFIVSLAFADLLVSVLVNAF 76
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAIELVQDIWFYGEMFCLVRTSLDVLLTTASIFHLCCISLDRYYAICCQPLVYRNKMTPL 136
NGTVPSFCMDFTVYKVTISVILIIL----ILVTVAGNVVVCLAVGLNRRLRSLTNCFIVS
                                                                           NGSCPR-----TVHTLGIQLVIYLTCAAGMLIIVLGNVFVAFAVSYFKALHTPTNFLLLS 75
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RVALRYILAG-WGVPAAYTSLFL-----YTDVVETR------LSQWLEEMPCVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STIRSVESCWFFGDFLCRLHTYLDTLFCLTSIFHLCFISIDRHCAI-CDPLLYPSKFT-V 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TADQHSTHRMRTETKAAKTLCVIMGCFCFCWAPFFVTNIVDPFIDYTVPEKVWTAFLWLG
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                                                                                                                                                               Conservative
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                                                                                                                                                                                                 Score 420;
Pred. No. 5.
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5; Mismatches
                                                                                                                                                               Mismatches 118;
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No. 3.6
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                                                                                                                                                                                                 DB 2;
.5e-28;
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RESULT 6
A45121
alpha-1B adrenergic receptor - human
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 17-Feb-1994 #sequence_revision 17-Feb-1994 #text_change 20-Apr-2000
C;Date: 17-Feb-1911; JC2332
C;Accession: A45121; JC2332
R;Ramarao, C.S.; Denker, J.M.; Perez, D.M.; Gaivin, R.J.; Riek, R.P.; Grahan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Accession: A40491
R;Cotecchia, S.; Schwinn, D.A.; Randall, R.R.; Lefkowitz, R;Cotecchia, Sci. U.S.A. 85, 7159-7163, 1988
A;Title: Molecular cloning and expression of the cDNA for A;Reference number: A40491; MUID:89017157; PMID:2845338
A;Accession: A40491
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C:Species: Mesocricetus auratus (golden hamster)
C:Date: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_change 13-Aug-1999
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A40491
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C;Keywords: G protein-coupled receptor; glycoprotein; transmembrane
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A; Residues: 1-515 < COT>
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Best Local !
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Pred. No. 9.5e-28;
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                      C; Date: 17.75
C; Accession: A25896
C; Accession: A25896
R; Yarden, Y; Rodriguez, H.; Wong, S.K.F.; Brandt, D.R.; May, D.C.; Burniet, Proc. Natl. Acad. Sci. U.S.A. 83, 6795-6799, 1986
A; Title: The avian beta-adrenergic receptor: primary structure and membrane
A: Deference number: A25896; MUID:86313664; PMID:3018746
                                                                                                                              beta-adrenergic receptor - turkey C;Species: Meleagris gallopavo (common C;Date: 16-Aug-1988 #sequence_revision
A; Molecule type: n
A: Residues: 1-483
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mRNA

turkey) 16-Aug-1988

#text\_change 13-Aug-1999

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F;157-184/Domain: t
F;203-227/Domain: t
F;290-320/Domain: t
F;326-360/Domain: t
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A;Map position: 5q3l.1-5q33.2
C;Superfamily: vertebrate rhodopsin
C;Keywords: G protein-coupled receptor; transmembrane protein-coupled receptor; transmembrane protein-coupled receptor; transmembrane protein-coupled receptor; transmembrane predicted <TM1>
F;81-111/Domain: transmembrane predicted <TM2>
F;121-146/Domain: transmembrane predicted <TM3>
F;121-146/Domain: transmembrane predicted <TM3-
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A;Note: sequence extracted from NCBI backbone (NCBIP:116785)
A;Note: this translation is not annotated in GenBank entry HUMADRENB, release 113.0 #
A;Weinberg, D.H.; Trivedi, P.; Tan, C.P.; Mitra, S.; Perkins-Barrow, A.; Borkowski, D
Blochem. Blophys. Res. Commun. 201, 1296-1304, 1994
A;Title: Cloning, expression and characterization of human alpha adrenergic receptors
A;Reference number: JC2331; MUID:94296402; PMID:8024574
A;Accession: JC2332
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A;Title: Genomic organization and expression of the human alpha 1B-adrenergic recepto A;Reference number: A45121; MUID:93016158; PMID:1328250
A;Accession: A45121
A;Status: preliminary
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A; Residues: 1-158,'P',160-244,'H',246-314,'F',316-380,382-517
C; Genetics:
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A; Residues: 1-517 <R
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LKPPDAVFKVVFWLGYFNSCLNPIIYPCSSKEFKRA
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                                                                         ITPP-LVFDIFIWFAYFNSACNPIIYVFSYQWFRKA
                                                                                                                                                           DTLSSTKAKGHNPRSSIAVKLFKFSREKKAAKTLGIVVGMFILCWLPFFIALPLGSLFST
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Pred. No. 1.2e-27;
2; Mismatches 125
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<TM5>
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-WNSRNGTRGGNDTFKCKVQ

176

254

-SWKAATIREHKATVTL

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283

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A;Cross-references: GB:S57565; NID:g236183; PIDN:AAB1935.1; PID:g236184 C;Superfamily: vertebrate rhodopsin
C;Keywords: G protein-coupled receptor; glycoprotein; phosphoprotein; traff;22-45/Domain: transmembrane #status predicted <TMI>F;22-45/Domain: transmembrane #status predicted <TMI>F;8-81/Domain: transmembrane #status predicted <TM3>F;93-113/Domain: transmembrane #status predicted <TM3>F;136-159/Domain: transmembrane #status predicted <TM5>F;178-203/Domain: transmembrane #status predicted <TM6>F;234-260/Domain: transmembrane #status predicted <TM6>F;267-288/Domain: transmembrane #status predicted <TM7>F;4/Binding site: carbohydrate (Asn) (covalent) #status predicted F;220,311,315/Binding site: phosphate (Ser) (covalent) #status predicted
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C;Species: Rattus norvegious (Norway rat)
C;Date: 31-Mar-1992 #sequence_revision 31-Mar-1992 #text_change 05-Nov
C;Accession: J01278
R;Ruat, M; Traiffort, E; Arrang, J.M.; Leurs, R.; Schwartz, J.C.
Blochem. Biophys. Res. Commun. 179, 1470-1478, 1991
A;Title: Cloning and tissue expression of a rat histamine H2-receptor
A;Reference number: J01278; MUID:92028890; PMID:1930188
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A; Residues: 1-358 < RUA>
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Date: 31-Mar-1992 #sequence_revision 31-Mar-1992 #text_change 05-Nov-1999
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Best Local (
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                                                                                                                                                                               TVHSCCLDSMALKVTISVVLTTLILITIAGNVVVCLAVSLNRRLRSLTNCFIVSLAATDL
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                                                            LLGLLVLPFSAIYQLSFTWSFGHVFCNIYTSLDVMLCTASILNLFMISLDRYCAVTDPLR
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                                                                                                                                                                                                                                                                                                    Conservative
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A;Cross-references: GDB:391259; OMIM:142703
A;Map position: Spter-Sqter
C;Superfamily: vertebrate rhodopsin
C;Superfamily: vertebrate stodopsin
C;Keywords: G protein-coupled receptor; transmembrane f;F;23-44/Domain: transmembrane #status predicted <TM1>F;58-81/Domain: transmembrane #status predicted <TM2>F;93-114/Domain: transmembrane #status predicted <TM3>F;93-114/Domain: transmembrane #status predicted 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross references: GB:M64799; NID:g184087; FR;Nishi, T.; Koike, T.; Oka, T.; Maeda, M.; FR; Blochem. Biophys. Res. Commun. 210, 616-623; A;Title: Identification of the promoter region, Reference number: 152319; MUID:95273318; PMA;Accession: 152319
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A;Molecule type: DNA
A;Residues: 1-359 <RES>
A;Cross-references: GB:D49783; NID:g728495; PIDN:BAA08618.1; PID:g728496
C;Comment: Histamine is important in the regulation of gastric acid secre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Species: Homo sapiens (man)
C;Date: 31-Mar-1992 #text_change
C;Date: 131-Mar-1992 #text_change
C;Accession: JH0449; 152319
R;Gantz, I.; Munzert, G.; Tashiro, T.; Schaeffer, M.; Wang, L.;
Biochem. Biophys. Res. Commun. 178, 1386-1392, 1991
A;Title: Molecular cloning of the human histamine H2 receptor.
A;Reference number: JH0449; MUID:91337087; PMID:1714721
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JH0449
histamine H2 receptor -
C; Species: Homo sapiens
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A; Residues: 1-359 <GAN>
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KVQVNEVYGLVDGLVTFYLPLLIMCITYYRIFKVARDQAKRINHIS-SWKAATIREHKAT
                                                         QLLLNKFWGWLN-FPLFFVPCLIMISLYVKIFVVATRQAQQITTLSKSLAGAAKHERKAA
                                                                                                               CAVMDPLRYPYLYTPYRVAISLYLI-WYI--SITLSFLSIHLGWNSRNETSKGNHTTSKC
                                                                                                                                                                         CAICDPLLYPSKFT-VRVALRYILAGWGVPAAYTSLFLYTDVVETRLSQWLEEMPCVGSC
                                                                                                                                                                                                                               SLAITDLLLGLLVLPFSAIYQLSCKWSFGKVFCNIYTSLDVMLCTASILNLFMISLDRY
                                                                                                                                                                                                                                                                                           LSLALADMFLGLLVLPLSTIRSVESCWFFGDFLCRLHTYLDTLFCLTSIFHLCFISIDRH
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Pred. No. 1.3
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L8; PMID:7755641
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Futa1, M.
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1.3e-27;
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protein

secretion

Length Indels

33;

Gaps

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117 133

57

251 174 192

233

human

histamine

H2-receptor

gen

PID: 9184088

DelValle, J.; 24-Nov-1999

Yamada,

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RESULT 10

$71323
$19ha-1A adrenergic receptor - Japanese medaka
C;Species: Oryzias latipes (Japanese medaka)
C;Date: 23-Jul-1997 #sequence_revision 01-Aug-1997 #tc
C;Accession: $71323
R;Yasuoka, A; Abe, K; Arai, S; Emori, Y.
Eur. J. Biochem. 235, 501-507, 1996
A;Title: Molecular cloning and functional expression of A;Reference number: $71323; MUID:96184522; PMID:86543; A;Accession: $71323
A;Status: preliminary
A;Status: preliminary
                                                                                                                                                          alpha-1C-adrenergic receptor splice form 3 - W. Alternate names: alpha-1C-adrenoceptor isof C; Species: Homo sapiens (man) C; Date: 22-Nov-1996 #sequence_revision 22-Nov C; Accession: S65656; S65654 R; Tanaka, T.
A;Molecule type: mRNA
A;Residues: 1-429 <TAN>
A;Residues: 1-429 <TAN>
A;Cross references: EMBL:D32201; NID:g927210; PIDN:BAA06900.1; PID:g927211
A;Cross references: EMBL:D32201; NID:g927210; PIDN:BAA06900.1; PID:g927211
R;Hirasawa, A.; Shibata, K.; Horie, K.; Takei, Y.; Obika, K.; Tanaka, T.; PEBS Lett. 363, 256-260, 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: EMBL:D63859
A;Note: it is uncertain whether Met-1 or C;Superfamily: vertebrate rhodopsin
                                                                                                                       R; Tanaka, T. submitted to the EMBL Data A; Reference number: S65656
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A; Residues: 1-477 < YAS>
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Mismatches
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                            Tanaka, T.; Muramoto,
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A;Title: Cloning, functional expression and tissue distribution A;Reference number: S65654; MUID:9525557; PMID:7737411
A;Accession: S65654
A;Molecule type: mmNA
A;Residues: 424-429 <HIR>
A;Cross-references: EMBL:D32201
C;Genetics:
A;Gene: GDB:ADRA1C; ADRA1L1
A;Cross-references: GDB:128088; OMIM:104221
A;Map position: 8p21-8p11.2
C;Superfamily: vertebrate rhodopsin
C;Reywords: alternative splicing: neurotransmitter receptor
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                                                                                                                                                                                                                                       PLLYPSKFTVRVALRVILAGWGVPAAYTSLFLYTDVVETRLSQWLEEMPCVGS-CQLLLN 197
                                                                                                                                                                                                                                                                                                                                                        SSNCTQPPAPVNISKAILLGVILGGLILFGVLGNILVILSVACHRHLHSVTHYYIVNLAV
                                                                                                                                                                                                                                                                                                                                                                                        NGSCPRTVHTLGIQLVIYLTCAAGMLII--VLGNVFVAFAVSYFKALHTPTNFLLLSLAL
DFKPSETVFKIVFWLGYLNSCINPIIYPCSSQEFKKAFQNVL
                                                                                                                                       EEPGYVLFSALGSFYLPLAIILVMYCRVYVVAKRESRGLKSGLKTDKSDSEQVTLRIHRK 239
                                                                                                                                                                          KEWGWLNEPL---EEVPCLIMISLYVKIEVVATRO-------AQQITTL----
                                                                                                                                                                                                    PLRYPTIVTQRRGLMALLCVW-----ALSLVISI--GPLFGWRQPAPEDETICQ--IN
                                                                                                                                                                                                                                                                                                                   ADMFLGLLVLPLSTIRSVESCWFFGDFLCRLHTYLDTLFCLTSIFHLCFISIDRHCAICD 138
                                 FITP-PLVFDIFIWFAYFNSACNPIIYVFSYQWFRKALKLTL
                                                                    NAPAGGSGMASAKTKTHFSVRLLKFSREKKAAKTLGIVVGCFVLCWLPFFLVMPIGSFFP
                                                                                                     ----SKSLAGAA-----KHERKAAKTLGIVVGIYLLCWLPFTIDIMVDSLLH
                                                                                                                                                                                                                                                                                  ADLLLTSTVLPFSAIFEVLGYWAFGRVFCNIWAAVDVLCCTASIMGLCIISIDRYIGVSY 130
                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
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1; Mismatches 126;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 412.5;
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                                                                    299
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alpha-1C-adrenergic receptor - human C;Species: Homo sapiens (man) C;Species: Homo sapiens (man) C;Date: 30-Sep-193 #sequence\_revision 20-Aug-1994 #text\_change 21-Jul-2000 C;Date: 30-Sep-193 #sequence\_revision 201419 C;Accession: JN0765; I84635; JC2333; G01419 R;Hirasawa, A.; Horie, K.; Tanaka, T.; Takagaki, K.; Murai, M.; Yano, J.; Ti Biochem. Biophys. Res. Commun. 195, 902-909, 1993 Biochem. Biophys. Res. Commun. 195, 902-909, 1993 A;Title: Cloning, functional expression and tissue distribution of human cDi A;Reference number: JN0765; MUID:93384619; PMID:8396931 of human cDNA Yano, J.; Tsujimoto,

for

the

A; Reference number: A; Accession: JN0765

A:Molecule type: mRNA
A;Residues: 1-466 <HRNA
A;Residues: 1-466 <HRNA
A;Cross-references: GB:L31774; NID:g666892; PIDN:AAB5948
R;Diehl, N.L.; Shreeve, S.M.
Bur. J. Pharmacol. 268, 393-398, 1994
Bur. J. Pharmacol. 268, 393-398, 1994
A;Title: Identification of the alpha 1c-adrenoceptor in A;Reference number: I47013; MUID:95104335; PMID:7805763
A;Accession: I84635 PIDN: AAB59486.1; PID: g666893

rabbit

arteries

and

the

human

A; Status: preliminary; translated from GB/EMBL/DDBJ

A; Molecule type: mRNA
A; Residues: 202-344 CDIE>
A; Residues: 202-348 CDIE>
A; Cross-references: GB:S76001; NID:9913817; PIDN:AAD14205.1;
R; Weinberg, D.H.; Trivedi, P.; Tan, C.P.; Mitra, S.; PerkinsBlochem. Blophys. Res. Commun. 201, 1296-1304, 1994
A; Title: Cloning, expression and characterization of human al
A; Reference number: JC2331; MUID:94296402; PMID:8024574
A; A; Accession: JC2333. Perkins-Barrow, alpha PID: g4261905 adrenergic Α.. Borkowski, receptors

A;Molecule type: mRNA A;Residues: 1-130,'F',132-140,'P',142-166,'C',168-247,'H',249-337,'C',339-430, A;Cross-references: GB:S70782; NID:g547219; PIDN:AAB31163.1; PID:g547220 ó

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A;Cross-references: EMBL:U07126; NID:g595275; R;Stewart, A.F.; Rokosh, D.G.; Balley, B.A.; I Circ. Res. 75, 796-802, 1994
                                                                                                                                                                                                        C;Species: Rattus norvegicus (Norway rat)
C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 20-Apr-2000
C;Accession: 157959; 152862; PC2179
R:Laz, T.M.; Forray, C.; Smith, K.E.; Bard, J.A.; Vaysse, P.J.; Branchek, T.Mol. Pharmacol. 46, 414-422, 1994
A;Title: The rat homologue of the bovine alpha 1c-adrenergic receptor shows A;Reference number: 157959; MUID:95021119; PMID:7935320
A;Accession: 157959
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A:Cross-references: GDB:128088;
A;Map position: 8p21-8p11.2
                                                                                                                        A; Molecule type: mRNA
A; Residues: 1-466 < RES>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      lpha-1C adrenergic receptor – rat
                                                                                                                                                                               Status: preliminary;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13,22/Binding site: carbohydrate (Asn) (covalent) #status
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112; Conser
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      rat alpha 1C-adrenergic receptor
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                                                                                                                                                                                                                                                                                                                                K.E.; Bard, J.A.; Vaysse, P.J.; Branchek, T.A.; Weinsha
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l; Mismatches
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                                                                Karns,
                                                          PIDN:AAA62866.1; PID:g595276 Karns, L.R.; Chang, K.C.; Long
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RESULT 14
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C; Comment: This factor comprises a multigene family. As do alpha-2
C; Comment: This factor comprises a multigene family. As do alpha-2
C; Keywords: neurotransmitter receptor; transmembrane protein
F; 26-42/Domain: transmembrane #status predicted <TM1>
F; 73-89/Domain: transmembrane #status predicted <TM3>
F; 104-120/Domain: transmembrane #status predicted <TM4>
F; 147-163/Domain: transmembrane #status predicted <TM5>
F; 276-292/Domain: transmembrane #status predicted <TM5>
F; 376-399/Domain: transmembrane #status predicted <TM5>
F; 306-329/Domain: transmembrane #status predicted <TM7>
R;Hirasawa, A.; Shibata, K.; Horie, K.; Takei, Y.; Obika, K.; Tanaka, T.; Muramoto, N FEBS Lett. 363, 256-260, 1995
A;Title: Cloning, functional expression and tissue distribution of human alpha(1C)-ad A;Reference number: S65654; MUID:95255557; PMID:7737411
                                                                                                                                                                                                         submitted to the EMBL Data A; Reference number: S65656
                                                                                                                                                                                                                                                                                                                                         alpha-1C-adrenergic receptor splice form 2 - human
N;Alternate names: alpha-1C-adrenoceptor isoform 2
C;Species: Homo sapiens (man)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
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                                                                                                                              A; Molecule type: mRNA
A; Residues: 1-499 < TAN>
                                                                                                                                                                                   A; Reference number: A; Accession: S65657
                                                                                                                                                                                                                                                                    R; Tanaka,
                                                                                                                                                                                                                                                                                      C;Date: 22-Nov-1996 #sequence_revision 22-Nov-1996 #text_change 20-Jun-2000 C;Accession: S65657; S65655
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A; Status: preliminary; translated
                                                                           A;Cross-references: EMBL:D32202; NID:g927208; PIDN:BAA06901.1; R;Hirasawa, A.; Shibata, K.; Horie, K.; Takei, Y.; Obika, K.;
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A; Residues: 102-279 < ROK>
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A; Residues: 1-38,'L',40-66,'G',68-466 <RE2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Accession: PC2179
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        302 KPSETVFKIVFWLGYLNSCINPIIYPCSSQEFKKAFQNVL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  141 LYPSKFTVRVALRYILAGWGVPAAYTSLFLYTDVVETRLSQWLEEMPCVGS-CQLLLNKF 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          73
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PAEGGGVSSAKNKTHFSVRLLKFSREKKAAKTLGIVVGCFVLCWLPFFLVMPIGSFFPDF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PGYVLFSALGSFYVPLAIILVMYCRVYVVAKRESRGLKSGLKTDKSDSEQVTLRIHRKNV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WGWLNFPL---FFVPCLIMISLYVKIFVVATRQ-------AQQITTL--SKSL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LLLTSTVLPFSAIFEILGYWAFGRVFCNIWAAVDVLCCTASIMGLCIISIDRYIGVSYPL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 412.5; | Pred. No. 3e-2: 51; Mismatches
                                                                                                                                                                                                                                   July 1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .5; DB 2;
3e-27;
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                                                                                                     PID: 9927209
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C;Accession: I51661
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A;Cross-references: GDB:128088; OMIM:104221
A;Map position: 8p21-8p11.2
C;Superfamily: vertebrate rhodopsin
C;Keywords: alternative splicing; neurotransmitter receptor
                                                                                                                                                                                                                                                                                                                                                                                                 A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-465 <SUG>
A;Cross-references: EMBL:U07865; NID:g559763; PIDN:AAJ:50830.1; PID:g559764
C;Superfamily: vertebrate rhodopsin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         dopamine DIC receptor - African clawed frog (fragment, C;Species: Xenopus laevis (African clawed frog) C;Species: Xenopus laevis (African clawed frog) C;Date: 13-Sep-1996 #t:xt_change 13-Aug-1999 C;Date: 13-Sep-1996 #t:xt_change 13-Aug-1999
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A;Residues: 424-499 <HIR>
A;Cross-references: EMBL:D32202
C;Genetics:
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C; Keywords: neurotransmitter receptor
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                                         150 VALRYILAGWGVPAAYTSLFLYTDVVETRLSQWL-----EEMPCVG---SCQLLLNKFW 200
                                                                                                                                                                                                                                                                                     106;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FITP-PLVFDIFIWFAYFNSACNPIIYVFSYQWFRKALK:IL 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EEPGYVLFSALGSFYLPLAIILVMYCRVYVVAKRESRGL (SGLKTDKSDSEQVTLRIHRK 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VAFIMIGVAW-----TLSILISFIPVQLS-WHKSHEALEELNGVNHTENCDSSLNRTY 195
                                                                                        WKAVTEVAGFWVFGDF-CDTWVAFDIMCSTASILNLCIISLDRYWAIASPFRYERKMTQR 143
                                                                                                                   LSTIRSVESCWFFGDFLCRLHTYLDTLFCLTSIFHLCFISIDRHCAICDFLLYPSKFTVR 149
                                                                                                                                                                                     LSLRALTGLLLSLLILSTLLGNTLVCLAVIKFRHLRSKVINFFVISLAVSDLFVALLVMP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DFKPSETVFKIVFWLGYLNSCINPIIYPCSSQEFKKAFQ: VL 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAPAGGSGMASAKTKTHFSVRLLKFSREKKAAKTLGIVV;CFVLCWLPFFLVMPIGSFFP 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ----SKSLAGAA-----KHERKAAKTLGIVV;IYLLCWLPFTIDTMVDSLLH 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PLRYPTIVTQRRGLMALLCVW-----ALSLVISI--G?LFGWRQPAPEDETICQ--IN 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PLLYPSKFTVRVALRYILAGWGVPAAYTSLFLYTDVVETRLSQWLEEMPCVGS-CQLLLN 197
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                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                    23.0%; Score 411; DB 2; Iength 465; 32.3%; Pred. No. 4.1e-27;
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                                                                                                                                                                                                                                                                                Mismatches 118; Indels
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Search completed: August 26, 2003, 14:25:23 Job time : 21 secs

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OM protein - protein search, using sw model

Run on: August 26, 2003, 14:21:42; Search time 13 Seconds (without a.ignments)
1219.077 Million cell updates/sec

Title: Perfect score: Sequence:

US-09-988-745-2 1785 1 MRAVFIQGAEEHPAAFCYQV......LTLSQ:(VFSPQTRTVDLYQE 337

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched: 127863 seqs, 47026705 residues

Total number of hits satisfying chosen parameters: 127863

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database : SwissProt\_41:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

388 1 388 1 388 1 466 1 476 1 47	Result No.
3888 1 3888 1 3888 1 4666 1 4666 1 359 1 358 1 358 1 358 1 358 1 358 1 358 1 366 1 374 1 366 1 374 1 366 1 367 1 368 1	Score
4444444444444444444444444444	Query Match
544_HUMAN  544_CAVPO  1 544_RAT  1 A1AA_RABIT  1 A1AA_RABIT  1 A1AA_RABIT  1 A1AB_MESAU  1 A1AB_HUMAN  1 A1AB_HUMAN  1 A1AB_HUMAN  1 A1AB_HUMAN  1 A1AB_HUMAN  1 A1AA_RAT  1 A1AB_HUMAN  1 A1AA_BOVIN  1 A1AA_BOVIN  1 A1AB_BOVIN	Length I
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p97288 mus musculu Q13639 homo sapien Q70528 cavia porce Q62758 rattus norv P97718 mus musculu Q13639 homo sapien Q70528 cavia porce Q62754 renopus lae P17841 mesocricetu Q9wu25 cavia porce Q42574 xenopus lae P15823 rattus norv P35368 homo sapien P07700 meleagris g P25102 rattus norv P35348 homo sapien Q91175 oryzlas lat Q91175 oryzlas lat Q91175 oryzlas lat Q91175 rattus norv P3729 mus musculu Q42291 xenopus lae P97717 mus musculu Q18130 bos taurus P18130 bos taurus P18130 bos taurus P18130 rattus norv Q61224 mus musculu Q118130 bos taurus P18130 bos taurus P18130 bos taurus P18130 sos taurus P18130 bos taurus P18130 bos taurus P18130 sos taurus	Description

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45	44	43	42	41	40	39	38	37	36	35	34
392	393	393	393.5	394	394.5	395.5	395.5	396.5	397	397.5	397.5
22.0	22.0	22.0	22.0	22.1	22.1	22.2	22.2	22.2	22.2	22.3	22.3
451	457	377	446	473	428	474	446	377	440	466	459
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DADR_XENLA	DBDR_XENLA	5H1D_RABIT	DADR_HUMAN	Blar_CANFA	B4AR_MELGA	B1AR_FELCA	DADR_MACMU	5H1D_HUMAN	5H6_HUMAN	Blar_rat	D1DR_FUGRU
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Name=5-HT4(E); ISOId=997288-3; Sequence=VSP_001852; Name=5-HT4(E); ISOId=P97288-4; Sequence=VSP_001853;	ISOId=P9/288-2; Sequence=Displayed; Name=5-H14(A); ISOId=P97288-2; Sequence=VSP_001851;	Event=Alternative splicing; Named isoforms=4; Name=1;	SUBCELLULAR LOCATION: Integ ALTERNATIVE PRODUCTS:	THIS RECEPTOR IS MEDIATED BY G PROTEINS THAT STIMULATES ADENYLATE CYCLASE (BY SIMILARITY).	DATTRIFTAMINE (SEROTONIN), A BIOGENIC HORMONE THAT F NEUROTRANSMITTER, A HORMONE, AND A MITOGEN. THE ACT	ONE OF THE SEVERAL DIFFERENT RECEPTOR	"Nover brain specific 5-HW receptor splice variants show marked constitutive activity: role of the C-terminal intracellular domain.";	en M	TISSUE-Brain; MEDLINE-99238795: PubMed-10220570:	SEQUENCE FROM N.A. (ISOFORM 5-HT4(F)).	. N.Y. Acad. Sci. 861:49-56(1998).	<pre>Claeysen S., Faye P., Sebben M., Tavlaux S., Bockaert J., Dumuis A.; "5-HT4 receptors: cloning and expression of new splice variants.";</pre>	PubMed=9928238;	ted	REVISIONS TO C-TERMINUS.	BS Lett. 398:19-25(1996).	ptor.";	"Cloning, expression and pharmacology of the mouse 5-HT(4L)	6;	SEQUENCE FROM N.A.	I_TaxID=10090;	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.	mike. Mus. musculus (Mouse).	ptamine 4 receptor (5-HT-	-JUL-1999 (Rel. 38, Last sequence update) -FEB-2003 (Rel. 41, Last annotation update)	Created)	MOUSE STANDARD;	1 SE

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EMBL; Y09587; CAA70775.1; -.
EMBL; Y09588; CAA70776.1; -.
EMBL; AJ011369; CAA09598.1; -.
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InterPro; IPR000276; GPCR_Rhodpsn
Pfam; PF00001; 7tm_1; 1.
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FMVNKPYATTCSVVAFYIPFLLMVLAYYRIYVTAKEHAQQIQMLQR`-AGATSESRPQPA
                                                                                                                                                              GAIELVQDIWAYGEMFCLVRTSLDVLLTTASIFHLCCISLDRYYAICCQPLVYRNKMTPL
                                                                                                                 RVALRYILAG-WGVPAAYTSLFL-----YTDVVETRL-----SQWLEEMPCVGSCQ 193
                                            LLLNKFWG-WLNFPLFFVPCLIMISLYVKIFVVATRQAQQITTLSKSLAGAAKHER----
                                                                                   RIAL -- MLGGCWVLPMFISFLPIMQGWNNIGIVDVIEKRKFSHNSNSTW-----
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G_PROTEIN_RECEP_F1_2; 1.
receptor; Transmembrane; Glycoprotein;
Lipoprotein; Palmitate; Alternative splicing.
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329
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Pred. No. 3.8e-24;
5; Mismatches 109
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3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
4 (POTENTIAL).
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RDAVECGGQWESRCHLTATSPLVAAQPSDT
RRPVPV (in isoform 5-HT4(E)).
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7 (POTENTIAL).
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5 (POTENTIAL).
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CYTOPLASMIC (
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F84163F39BA115B0 CRC64;
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Bender E., Pindon A., van Oers I., Zhang Verhasselt P., Jurzak M., Leysen J., Luy **structure of the human serotonin 5-HT4 novel 5-HT4 splice variant.";
J. Neurochem. 74:478-489(2000).
                                                                                                                                    TISSUE-Hippocampus;
Vilaro M.T., Domenech T., Palacios J.M., Mengod
"Cloning and characterization of multiple human
variants including a novel variant that lacks th
spliced C-terminal exon.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5H4_HUMAN STANDARD; PRT; 388 AA. 013639; 09H199; Q9NY73; Q9UBM6; Q9UBT4; Q9UE22; 01-NOV-1997 (Rel. 35, Created)
                                                                                                                                                                                                                                               MEDLINE-99238795; PubMed-10220570; Claeysen S., Sebben M., Becamel C., Bockaert J., Dumuis A., "Novel brain-specific 5-H4 receptor splice variants show ma constitutive activity: role of the C-terminal intracellular mol. Pharmacol. 55:910-920(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE-Heart;
MEDLINE-98012006;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                      SEQUENCE OF 10-388 FROM N.A. (ISOFORM 5-HT4(F))
MEDLINE=20110418; PubMed=10646498;
                                                                                                                                                                                                                    SEQUENCE FROM N.A. (ISOFORM 5-HT4(G)).
                                                                                                                                                                                                                                                                                                                                                           Claeysen S., Faye P., Sebben M., Lemaire S., Bockaert J., Dumuis A.; "Cloning and expression of human 5-HT4S receptors. Effect of receptor density on their coupling to adenylyl cyclase."; NeuroReport 8:3189-3195(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Van den Wyngaert I., Gommeren W., Jurzak M.,
Leysen J., Luyten W., Bender E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        hydroxytryptamine receptor isoforms in the carboxyl terminus.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Blondel O., Gastineau M., Dahmoune Y., Langlois M., Fischmeister R., "Cloning, expression, and pharmacology of four human 5-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5-hydroxytryptamine
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16-OCT-2001 (Rel. 40, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation updat
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4 receptor (5-HT-4) (Serotonin
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on of 5-HT4
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                                                                                                                               EMBL/GenBank/DDBJ databases
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Catarrhini;
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                                                        Zhang Y.B.,
., Luyten W.,
                                                                                                                                                             that lacks the
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                                           receptor gene and cloning
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                                                                       Gommeren W.,
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5-HT4 receptor
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SEQUENCE OF 112-255 FROM N.A.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE-95385798; PubMed-7656980; Ullmer C., Schmuck K., Kalkman H.O., "Expression of serotonin receptor mR
                                                                                                                                                                                               Genew;
                                                                                                                                                                                                                                         EMBL;
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                                                                                                                                                                                                                                                                                                                                                                                             use
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cyclase.
SUBCELLULAR LOCATION: Integral membrane protiin.
ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                      L; Y12505; CAA73107.1; -. Y12506; CAA73108.1; -. Y12507; CAA73109.1; -. Y12507; CAA73109.1; -. Y10437; CAA71462.1; -. Y10437; CAA70002.1; -. Y08756; CAA70774.1; -. Y15584; CAA73911.1; -. Y15584; CAA73911.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE SPECIFICITY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FUNCTION: This is one of the several different receptors
                                                                                                                                                                                                       S66493; S66493.
; P29274; 1MMH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  as a neurotransmitter, a hormon this receptor is mediated by G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Name=5-HT4(G);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Name=5-HT4(E);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Name=5-HT4(D);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Name=5-HT4(A); Synonyms=5-HT4S;
IsoId=Q13639-2; Sequence=VSP_001849;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Event-Alternative splicing; Named isoforms-7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    hydroxytryptamine (serotonin), a blogenic hommone that functions as a neurotransmitter, a hormone, and a mitogen. The activity of this receptor is mediated by G proteins that stimulates adenylate
                                                                                                                                                                                                                              AJ011371; CAA09600.1; -. AJ243213; CAB71316.1; -. AJ278982; CAC22251.1; -. Z48150; CAA88167.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IsoId=Q13639-6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IsoId=Q13639-5; Sequence=VSP_001846;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IsoId=Q13639-4; Sequence=VSP_001847;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IsoId-Q13639-1; Sequence-Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Comment=Additional isoforms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IsoId=Q13639-7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IsoId=Q13639-3;
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                                                                                                                                                                                                                                                                                                                                                                       requires
                                                                                                                                                                                                                                                                                                                                                            equires a license agreement (S email to license@isb-sib.ch).
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BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                                                                                                                                                            institutions as long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence=VSP_001850;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence-VSP_001845;
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Metaz Metaz Euther	00 (Rel. 00 (Rel. 00 (Rel. tryptamin	S	PFLYAFLNKSFRRAFLI	PIIYVFSYQW	HRMRTETKAAKTLCIIMGCFCLCWAP	КАА	: PYAITCSVVA	FWG-WLNFPL	:   :    RIALMLGG	RVALRYILAG-	:   GAIELVQDIW	STIRSVESCWFF	IQLVIYLT-CA	imilarity ; Conserva	388 AA;	360		360	360	ч	<b>л</b>	359						138 159
(Guinea pig). oa; Chordata; ia; Rodentia;	9, Creat 9, Last 9, Last 4 recep	TANDARD;	FRRAFLIIL	YOWFRKALKLTL	AKTLCIIMGCI	KTLGIVVGI	FYIPFLLMVI	EFVPCLIMIS	MLGGCWVIPTFISFLP	-WGVPAAYTSLFL	IYGEVFCLVI	FFGDFLCRL	AAGMLIIVL : : : :  STVILMAIL	25.5%; 34.5%; Live 5	43761 MW	388	•	388	388	0	0	388	169	184	388	294	260	158 192
). a; Craniata; Vertebrata; Euteleostomi; a; Hystricognathi; Caviidae; Cavia.	ted) sequence update) annotation update) ptor (5-HT-4) (Serotonin receptor) (5-HT4).	PRT; 388 AA.	1 327	320	CFCLCWAPFFVTNIVDPFIDYTVPGQVWTAFLWLGYINSGLN 308	VDSLLHFITPPLVFDIF	PYAITCSVVAFYIPFLLMVLAYYRIYVTAKEHAHQIQMLQRAGASSESRPQSADQHST 248	SLYVKIFVVATRQAQQITTLSKSLAGAAKHER	:     ::	YTDVVETR-LSQWLEEMPCVGSCQLLLNK	GAIELVQDIWIYGEVFCLVRTSLDVLLTTASIFHLCCISLDRYYAICCQPLVYRNKWTPL 136	LCFISIDRHCAI-CD	CAAGMLIIVLGNVFVAFAVSYFKALH-TPTNFLLLSLALADMFLGLLVLPL 90 : : ::  :    :     : : :      : ::  :  LSTVILMAILGNLLVMVAVCWDRQLRKIKTNYFIVSLAFADLLVSVLVMPF 76	Score 455.5; DB 1; Length 388; Pred. No. 7e-24; 59; Mismatches 111; Indels 39; Gaps 12;	<pre>/*TIG=VSE_001830. 4;</pre>	/FTIG=VSP_001849. Missing (in isoform 5-HT4(G)).	THIS COLORS COLORS (IN ISOLORS COLORS	TSPLVAAQPSDT	DAVECGGQWESQCHPPATSPLVAAQPSDT -> F (in isoform 5-HT4(C)).	REMAINS CONTRACT TO ANALYSIS -> SSTEED REMAINS (In isoform 5-HT4(D)).  /FTId=VSP 001847.	-HT4(E	TTId=VSP_001845.  DAVECGGQWESQCHPPATSPLVAAQPSDT ->	PALMITATE (BY SIMILARITY). L -> LERSLNQGLGQDFHA (in isoform 5-HTA/F\)	BY SIMILARITY.	MIC (POTENTIAL)	O (POTENTIAL).  EXTRACELULAR (POTENTIAL).	H	×

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the European Bioinformatics Institute. The use by non-profit institutions as long a modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               variants.";
Submitted (JUN-1997)
-1- FUNCTION: THIS I
                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro; IPRO00276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
PRINTS; PR00237; GPCRRHODODSN.
PROSITE; PS00237; G_PROTEIN_RECEP_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; Y13585; CAA73912.1; -. HSSP; P29274; 1MMH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          or send
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mitted (JUN-1997) to the EMBL/GenBank/DDBJ databases. FUNCTION: THIS IS ONE OF THE SEVERAL DIFFERENT RECEPTORS FOR 5-HYDROXYTRYPTAMINE (SEROTON), BOGGANIC HORMONE THAT FUNCTIONS AS A NEUGOTRANSMITTER, A HORMONE, AND AN MITOGEN. THE ACTIVITY OF THIS RECEPTOR IS MEDIATED BY G PROTEINS THAT STIMULATES ADENYLATE CYCLASE (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBCELLULAR LOCATION:
ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         s requires a license agreement (See http://www.isb-sib.ch/announce, an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Wyngaert I., Gommeren W., Jurzak M., Verhasselt P., J., Luyten W., Bender E.; g and expression of 5-HT4 receptor species and splice
                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FROM
                                                          STIRSVESCWEEGDELCRLHTYLDTLECLTSIEHLCEISIDRHCAI-CDELLYPSKFT-V
                                                                                           VEKVVLLTELSAVILMAILGNLLYMVAVCRDRQLRKIKTNYFIVSLAFADLLVSVLVMPF
                                                                                                        IQLVIYLT-CAAGMLIIVLGNVFVAFAVSYFKALH-TPTNFLLLSLALADMFLGLLVLPL
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RIAL--MLGGCWVIPMFISFLPIMQGWNNIGIVDLIEKRKFNQNSNSTYCV----FMVNK
                       RVALRYILAG-WGVPAAYTSLFL---
                                              GATELVQDIWVYGEMFCLVRTSLDVLLTTASIFHLCCISLDRYYAICCQPLVYRNKMTPL
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                                                                                                                                                                                                                                                                                                                                                                                            receptor; Transmembrane; Glycoprotein; Lipoprotein; Palmittate; Alternative splicing Parameters (POTENTIAL).
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G_PROTEIN_RECEP_F1_2; 1.
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GS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
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Pred. No. 1.1e
il; Mismatches
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STANDAKU;

Q62758; Q89034; Q62757; Q63006;

Q1-NOV-1997 (Rel. 35, Created)

O1-NOV-1997 (Rel. 35, Last sequence update)

28-FEB-2003 (Rel. 41, Last annotation update)

5-hydroxytryptamine 4 receptor (5-HT-4) (Serotonin receptor) (5-HT4).
                                                                                                                                                                                                                                                                                                      MEDLINE-99238795; PubMed-10220570;
Claeysen S., Sebben M., Becamel C., Bockaert J., Dumuis A.;
"Novel brain-specific 5-HT4 receptor splice variants show marked constitutive activity: role of the C-terminal intracellular domain."
MO1. Pharmacol. 55:910-920(1999).
-I- FUNCTION: THIS IS ONE OF THE SEVERAL DIFFERENT RECEPTORS FOR 5-
HYDROXYTRYPRAMINE (SEROTONIN), A BIOGENIC HORMONE THAT FUNCTIONS AS A NEUROTRANSMITTER, A HORMONE, AND A MITOGEN. THE ACTIVITY OF THIS RECEPTOR IS MEDIATED BY G PROTEINS THAT STIMULATES ADENYLAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gerald C., Adham N., Kao H.T., Olsen M.A., Laz T.M., Schechter L.E., Bard J.A., Vaysse P., Hartig P.R., Branchek T.A., Weinshank R.L.; "The 5-HT4 receptor: molecular cloning and pharmacological characterization of two splice variants."; EMBO J. 14:2806-2815(1995).
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MEDLINE-95317299;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. (ISOFORM 5-HT4(E)).
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                              PERIPHERAL THE ATRIUM DETECTABLE.
                                           ISOID-Q62758-3; Sequence-VSP_001855; TRANSCRIPTS ARE TISSUE SPECIFICITY: IN BRAIN, THE 5-HT45 TRANSCRIPTS ARE RESTRICTED TO THE STRIATUM, BUT THE 5-HT4L TRANSCRIPTS ARE EXPRESSED THROUGHOUT THE BRAIN, EXCEPT IN THE CEREBELLUM. IN PERIPHERAL TISSUES, DIFFERENTIAL EXPRESSION IS ALSO OBSERVED THE ATRIUM OF THE HEART WHERE ONLY THE 5-HT4S ISOFORM IS
                SIMILARITY: BELONGS TO
                                                                                                                              Name=5-HT4(E);
IsoId=Q62758-3;
                                                                                                                                                                                                                                                          SUBCELLULAR LOCATION: Integral membrane protein ALTERNATIVE PRODUCTS:
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Sciurognathi; Muridae;
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SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its

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InterPro; irav---
Pfam; PF00001; 7tm_1; 1.

PF1MTS; PF00237; GPCRRIODOPSN.
PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.

PROSITE; PS00237; G_PROTEIN_RECEP_F1_2; 1.

PROSITE; PS00237; G_PROTEIN_RECEP_F1_2; 1.

G-protein coupled receptor; Transmembrane; Glycoprotein; Pall Cing; Lipoprotein; Pall EXTRACELLULAR (POTENTIAL).

**POTENTIAL).**

**POTE
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RESULT 5
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P97718; 054913;
15-JUL-1998 (Rel. 36, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
28-FEB-2003 (Rel. 41, Last annotation update)
the European Bioinformatics Institute. They use by non-profit institutions as long a modified and this statement is not removed. entitles requires a license agreement (See ) or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Molecular cloning, expression and characterization of cDNA encoding a mouse alphala-adrenoceptor."; Br. J. Pharmacol. 124:213-221(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Alpha-lA adrenergic receptor adrenergic receptor).
ADRALA OR ADRALC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Molecular cloning of alpha 1d-adrenergic receptor and tissue distribution of three alpha 1-adrenergic receptor subtypes in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN=CD-1; TISSI
MEDLINE=98292316;
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MGD; MGI:104773; Adrala.
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STRAIN-CD-1; TISSUE-Brain,
                                                                                                                                                       Pfam; PF00001;
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SUBCELLULAR LOCATION:
PTM: CARBOXYL-TERMINAL
(BY SIMILARITY).
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                                                                                                                                        F00001; 7tm_1; 1.
PR00237; GPCRRHODOPSN
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Miyamoto S., Taniguchi T., Suzuki F., Takita M., Kosaka N., Negoro E.
Okuda T., Kosaka H., Murata S., Nakamura S., Akagi Y., Oshita M.,
Watanabe Y., Muramatsu I.;
"Cloning, functional expression and tissue distribution of rabbit alphala-adrenoceptor.";
Life Sci. 60:2069-2074(1997).
-1- FUNCTION: THIS ALPHA-ADRENERGIC RECEPTOR MEDIATES ITS ACTION BY ASSOCIATION WITH G PROTEINS THAT ACTIVATE A PHOSPHATIDYLINOSITOL-CALCIUM SECOND MESSENGER SYSTEM. ITS EFFECT IS MEDIATED BY G(Q)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LIPID
SEQUENCE
                                                                                                                                    Eukaryotā; Metazoa; Chordata; C. Mammalia; Eutheria; Lagomorpha; NCBI_TaxID-9986;
                                                                                                                                                                                                                                                          A1AA_RABIT
002824;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
MOD_RES
                                                                                                                                                                   Oryctolagus cuniculus (Rabbit).
Eukaryota; Metazoa; Chordata; C
                                                                                                                                                                                                             15-JUL-1998 (Rel. 36, Created)
15-JUL-1998 (Rel. 36, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
Alpha-1A adrenergic receptor (Alpha 1A-adrenoceptor) (Alpha-1C
                                                                                                                         SEQUENCE FROM
                                                                                                                                                                                        adrenergic receptor).
ADRAIA OR ADRAIC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
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                                                                                                                                                                                                                                                                                                                            VMPIGSFFPNFKPPETVFKIVFWLGYLNSCINPIIYPCSSQEFKKAFQNVL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HPAAFCYQVNGSCPRTVHTLGIQLVIYLTCAAGMLII--VLGNVFVAFAVSYFKALHTPT
                                                                                                                                                                                                                                                                                                                                                                     QIT-----TLSKSLAGAAKH-----
                                                                                                                                                                                                                                                                                                                                                                                                                 ETICQ -- INEEPGYVLFSALGSFYVPLTIILVMYCRVYVVAKRESRGLKSGLKTDKSDSE
                                                                                                                                                                                                                                                                                                                                                                                                                                      HPPA---QVN-----ISKAILLGVILGGLIIFGVLGNILVILSVACHRHLHSVT
                                                                                                                                                                                                                                                                                                                                               DTMVDSLL-HEITPPLVFDIFIWFAYFNSACNPIIYVFSYQWFRKALKLTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                           IDRYIGVSYPLRYPTIVTQRRGVRALLCVW-----ALSLVISI--GPLFGWRQQAPED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IDRHCAICDPLLYPSKFTVRVALRYILAGWGVPAAYTSLFLYTDVVETRLSQWLEEMPCV
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274
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                                                                                                                         N.A.
PROTEINS
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                                                                                   PubMed-9180361;
guchi T., Suzuki F., Takita
Nakamura S.,
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4 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

5 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

6 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 432.5;
Pred. No. 2.8e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CYTOPLASMIC (POTENTIAL).

-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

PHOSPHORYLATION (BY PKA) (POTENTIAL).

BY SIMILARITY.

PALMITATE (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EXTRACELLULAR (POTENTIAL).
7 (POTENTIAL).
                                                                                                                                                                    Craniata;
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3649A5A53DBD34DA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (POTENTIAL)
                                                                                                                                                        Leporidae;
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ae; Oryctolagus
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                                                                                                                                                                    Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                67;
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Best Local :
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CARBOHYD
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Multigene
                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
TRANSMEM
DOMAIN
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TRANSMEM
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DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entitles requires a license agreement (See http://www.isb-sib.or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collab between the Swiss Institute of Bioinformatics and the EMBL outset the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; U81982;
HSSP; P02699;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ---
                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                              CARBOHYD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUBCELLULAR LOCATION: Integral membrane protein TISSUE SPECIFICITY: ABUNDANT IN LIVER, VAS DEFERENS, AORTA, BUT NOT IN HEART. SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED
                                                                 235
                                                                                       179
299
                      279
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                                                                                                                                                                                                                                                                                  Similarity
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PRO0237; G_PROTEIN_RECEP_F1_1; 1.
PS50262; G_PROTEIN_RECEP_F1_2; 1.
PS50262; G_PROTEIN_RECEP_F1_2; 1.
n coupled receptor; Transmembrane; Glycoprotein;
n coupled receptor; Transmembrane; Glycoprotein;
Palmitate.
                                                                                                                                                                                                                                     PDFKPPETVFKIVFWLGYLNSCINPIIYPCSSQEFKKAFQNVL
                                                                                                                             PLRYPTIVTORRGLRALLCVWA------FSLVISVGPLFGWRQPAPDDETICQ--I
                                                                                                                                                                              ADLLLTSTYLPFSAIFEILGYWAFGRYFCNIWAAVDVLCCTASIISLCVISIDRYIGVSY
                                                                                                                                                                                                    ADMFLGLLVLPLSTIRSVESCWFFGDFLCRLHTYLDTLFCLTSIFHLCFISIDRHCAICD
                                                                                                                                                                                                                           SSNCTHPPAPVNISKAILLGVILGGLILFGVLGNILVILSVACHRHLHSVTHYYIVNLAV
                      HFITPP-LVEDIFIWFAYFNSACNPIIYVFSYQWFRKALKLTL
                                                                                      NEEPGYVLFSALGSFYVPLTIILAMYCRVYVVAKRESRGLKSGLKTDKSDSEQVTLRIHR
                                                                                                           NKEWGWLNEPL---FEVPCLIMISLYVKIFVVATRQ-------AQQIT-----
                                                                                                                                                        PLLYPSKFTVRVALRYILAGWGVPAAYTSLFLYTDVVET-RLSQWLEEMPCVGS-CQLLL
                                          KNAPAGGSGVASAKNKTHFSVRLLKFSREKKAAKTLGIVVGCFVLCWLPFFLVMPIGSFF
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                                                                                                                                                                                                                                                                                                                   466
                                                                 -TLSKSLAGAAKH----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Phosphorylation; Lipoprotein; Palmita 25 EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                             51365
                                                                                                                                                                                                                                                                                 24.2%;
33.2%;
                                                                                                                                                                                                                                                                                                                   ₹.
                                                                                                                                                                                                                                                                     53; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                            EXTRACELLULAR (POTENTIAL)
5 (POTENTIAL)
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N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
                                                                                                                                                                                                                                                                                                                                                            7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
PALMITATE (POTENTIAL).
                                                                                                                                                                                                                                                                                           Score 432.5;
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EXTRACELLULAR
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CYTOPLASMIC (
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) (POTENTIAL)
) (POTENTIAL)
341
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for
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MBL outstation -
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RESULT

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Query Match
Best Local (
  Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5H1D_FUGRU
P79748;
01-NOV-1997
01-NOV-1997
30-MAY-2000
                                                              CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Fugu rubripes (Japanese pufferfish) (Takifugu ruhripes).
Eukaryota; Metazoa; Chordata; Craniata; Vertebraia; Euteleostomi;
Acthopterygii; Neopterygii; Teleostei; Buteleosiei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
Tetradontoidea; Tetraodontidae; Takifugu.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FUGRU
                                                                                                                                                                                                                                                                                                                                                                                                                 use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           *Molecular cloning of 5-hydroxytryptamine (5-HT) type 1 receptor genes from the Japanese puffer fish, Fugu rubrip:s."; Gene 191:219-223(1997).
                                                                                                                                                                           TRANSMEM
                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                   Multigene
                                                                                                                                                                                                                                                                                                                           PROSITE: PS00237; G_PROTEIN_RECEP_F1_1; PROSITE; PS50262; G_PROTEIN_RECEP_F1_2;
                                                                                                                                                                                                                                                                                                                                                     PRINTS; PR00237; GPCRRHODOPSN
                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                 DISULFID
                                                                                                               DOMAIN
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                                                                                                                                                                                                                                                                             TRANSMEM
                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR000276; GPCR_Rhodpsn.
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                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FUNCTION: THIS IS ONE OF THE SEVERAL DIFFERENT RECEPTORS FOR 5-HYDROXYTRYPIAMINE (SEROTOMIN), A BIGCENIC HOWONE THAT FUNCTIONS AS A NEUROTRANSMITTER, A HORMONE, AND A MITOSEN. THE ACTIVITY OF THIS RECEPTOR IS MEDIATED BY G PROTEINS THAT INHIBITS ADENYLATE CYCLASE ACTIVITY (BY SIMILARITY).

SUBCELLULAR LOCATION: Integral membrane protein.

SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.

STRONGEST TO THE OTHER 5HT-1 SUBTYPE RECEPTORS.
                                                                                                                                                                                                                                                                                                                                                                                         X83865; CAA58745.1;
  109;
              Similarity
                                                                                                                                                                                                                                                                                                     family.
                                                                                                                                                                                                                                                                                                                 coupled receptor;
 Conservative
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61
37
74
107
1133
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39, I
ne 1D
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             23.7%;
30.8%;
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Last sequence update)
Last annotation update)
D receptor (5-HT-1D) (Serotonin
                                                  ₹.
 60;
                                             CYTOPLASMIC (POTEN'IAL).
BY SIMILARITY.
N-LINKED (GLCAAC. .) (POTEN'IAL).
N-LINKED (GLCAAC. .) (POTEN'IAL).
N-LINKED (GLCAAC. .) (POTEN'IAL).
M; 9986220379EBC78 CRC64;
Score 422.5;
Pred. No. 1.1e
50; Mismatches
                                                                                                                                                                                                                                                                                                                Transmembrane;
                                                                                                                              EXTRACELLULAR (POTHNTIAL)
                                                                                                                                                  CYTOPLASMIC
6 (POTENTIA:
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CYTOPLASMIC (
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EXTRACELLULAR (POTENTIAL)
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             ; DB 1 .1e-21;
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Indels
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                                                             (POTENTIAL)
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77;
Gaps
10;
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LGIQLVIYLTCAAGMLIIVLGNVFVAFAVSYFKALHTP!NFLLLSLALADMFLGLLVLPL 90

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                  DOMAIN
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                                                                                                                                                                             EMBL; U25440; AAA65713.1;
PIR; JC4120; JC4120.
HSSP; P29274; 1MMH.
InterPro; IPR000276; GPCR
                                                                                                                                                                                                                                              use by non-profit institutions as low modified and this statement is not remove entitles requires a license agreement (so or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                      the European Bioinformatics Institute. There are no rest
use by non-profit institutions as long as its content
modified and this statement is not removed. Usage by a
                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EW
                                                                                                                                                                                                                                                                                                                                                                                                                         Traiffort E.;
Submitted (APR-1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cavia porcellus (Guinea pig).
Eukaryota; Metazoa; Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Histamine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-FEB-1996
16-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN-Hartley;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                         TRANSMEM
                                                                                                             PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
G-protein coupled receptor; Transmembrane;
                                                                                                                                                    PRINTS; PR00237; GPCRRHODOPSN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=10141;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mammalia; Eutheria;
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     FRANSMEM
                                                                       DOMAIN
                                                                                                                                                                   Pfam; PF00001
                                                                                                                                                                                                                                                                                                                                                    mitted (APR-1995) to the EMBL/GenBank/DDBJ databases.
FUNCTION: THE H2 SUBCLASS OF HISTAMINE RECEPTORS MEDIATES GASTE
ACID SECRETION. THE ACTIVITY OF THIS REPETOR IS MEDIATED BY G
PROTEINS WHICH ACTIVATE ADENTIFY CYCLASE.
SUBCELLULAR LOCATION: Integral membrane protein.
SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAVPO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LFFVPCLIMISLYVKIFVVATRQ-----
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                                                                                                                                                                               GPCR_Rhodpsn
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Last annotation updat
(H2R) (Gastric recept
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LYCOPIOTE.

1 (POTENTIAL).

1 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

2 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

3 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

4 (POTENTIAL).
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Hystricognathi; Caviidae;
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                                                                                             Glycoprotein. (POTENTIAL).
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Matches 103
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01-NOV-1990 (Rel. 16, Last sequence update)
15-UUL-1998 (Rel. 36, Last annotation update)
Alpha-1B adrenergic receptor (Alpha 1B-adreneration)
ADRAIB.
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SEQUENCE
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Eukaryota; Metazoa; Chordata; Craniata
Mammalia; Eutheria; Rodentia; Sciurogn
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    Kjelsberg
                                                                           Caron M.G., Kobilka B.K.;
"Molecular cloning and expression
1-adrenergic receptor.";
Proc. Natl. Acad. Sci. U.S.A. 85:
                                                                                                                                         Cotecchia S., Schwinn D.A., Caron M.G., Kobilka B.K.;
                                                                                                                                                                              SEQUENCE FROM N.A. MEDLINE-89017157; PubMed-2845398;
                                                                                                                                                                                                                                         NCBI_TaxID=10036;
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                      MEDLINE-92112850;
                                             MUTAGENESIS OF ALA-293.
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      Cotecchia
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  PubMed=1346134;
otecchia S., Ost
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IMPLICATED IN HISTAMINE BINDING (B SIMILARITY).
N-LINKED (GLCNAC. . .) (POTENTIAL)
BY SIMILARITY.
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CYTOPLASMIC (POTENTIAL).
ESSENTIAL FOR HISTAMINE
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5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
                                                                                                                                                                                                                                                                              Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Cricetinae;
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7 (POTENTIAL).
                                                                             85:7159-7163(1988)
      Ostrowski
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    Caron
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LIPID
MUTAGEN
SEQUENCE
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J. Biol. Chem. 267:1430-1433(1992).

-i- FUNCTION: THIS ALPHA-ADRENERGIC RECEPTOR MEDIATES ASSOCIATION WITH G PROTEINS THAT ACTIVATE A PHOSPH CALCIUM SECOND MESSENGER SYSTEM.
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Multigene
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CARBOHYD
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DOMAIN
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DOMAIN
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Pfam; PF00001; 7tm_1; 1.
PRINTS; PR00237; GPCRRHODOPSN.
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PIR; A40491; /
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SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED
  203
                             200
                                                                                    141
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                                                                                   LYPSKFTVRVALRYILAGWGVPAAYTSLFLYTDVVETRLSQWLEEMPCVG-SCQLLLNKF
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                                                                                                                                                                                        NGSCPRTYHTLGIQLVIYLTCAAGMLIIVLGNVFVAFAVSYFKALHTPTNFLLLSLALAD
YALFSSLGSFYIPLAVILVMYCRVYIVAKRTTKNLEAGVMKEMSNSKELTLRIHSKNFHE
                            WG-WLNEPLEEVPCLIMISLYVKIEVVATRQAQQI------
                                                       LLLSFTVLPFSATLEVLGYWVLGRIFCDIWAAVDVLCCTASILSLCAISIDRYIGVRYSL
                                                                                                                                           MFLGLLVLPLSTIRSVESCWFFGDFLCRLHTYLDTLFCLTSIFHLCFISIDRHCAICDPL
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receptor; Transmembrane; Glyco
Phosphorylation; Lipoprotein;
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83
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N-LINKED (GLCNAC...)

N-LINKED (GLCNAC...)

N-LINKED (GLCNAC...)

BY SIMILARITY.

PALMITATE (POTENTIAL).
                                                                                                                                                                                                                                             Score 419;
Pred. No. 2.
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4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
5 (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                                      CYTOPLASMIC
                                                                                                                                                                                                                                                                                                                                                                                                                       7 (POTENTIAL)
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EXTRACELLULAR
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CYTOPLASMIC (
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tein; Palmitate.
                                                                                                                                                                                                                                                                                                                                                                                                                                   (POTENTIAL)
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MBL outstation -
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RESULT 10
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RA GONZAL
RT MEDLIN
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InterPro; IPkvvv-
InterPro; IPkvvv-
Pfam; pF00001; 7tm_1; 1.

Pfam; pF00001; 7tm_1; 1.

R PRINTS; pR00237; GPCRRHODOPSN.

R PROSITE; pS00237; G_PROTEIN_REGEP_F1_1; 1.

PROSITE; pS00237; G_PROTEIN_REGEP_F1_2; 1.

G-protein coupled receptor; Transmembrane; Glyccprotein; Palmitate.

FWW G-protein coupled receptor; Transmembrane; Glyccprotein; Palmitate.

EXTRACELLULAR (POTINTIAL).

1 (POTENTIAL).

1 (POTENTIAL).
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TRANSMEM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               *Molecular cloning and functional expression of the guinea pig alpha(la)-adrenoceptor.*;
Eur. J. Pharmacol. 426:147-155(2001).
-I- FUNCTION: THIS ALPHA-ADRENERGIC RECEPTOR MEDIATES ITS ACTION BY ASSOCIATION WITH G PROTEINS THAT ACTIVATE A PHOSPHATIDYLINOSITOL-CALCIUM SECOND MESSENGER SYSTEM. ITS EFFECT IS MEDIATED BY G(Q)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    O9WU25;
16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Alpha-lA adrenergic receptor (Alpha lA-adrenoceptor)
                                                     TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=21419075; PubMed=11527538;
Gonzalez-Espinosa C., Romero-Avila M.T.,
Gonzalez-Espinosa D., Garcia-Sainz J.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cavia porcellus (Guinea pig).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                   TRANSMEM
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SUBCELLULAR LOCATION: Integral membrane protein.
SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS
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     EXTRACELLULAR (POTINTIAL).
5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
7 (POTENTIAL).
                                                                                                                                                                                                  3 (POTENTIAL)
CYTOPLASMIC (
PALMITATE (POTENTIAL).
N-LINKED (GLCNAC. .)
N-LINKED (GLCNAC. .)
                                                   7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
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3 (POTENTIAL).
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Hystricognathi; Caviidae;
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                    InterPro;
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modified and this statement is not remcentities requires a license agreement or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Early expression of a betal-adrenergic receptor and in Xenopus occytes and embryos.";
FEBS Lett. 417:184-190(1997).
-i- FUNCTION: BETA-ADRENERGIC RECEPTORS MEDIATE THE INDUCED ACTIVATION OF ADENYLATE CYCLASE THROUGH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE-98055670; PubMed-9395292; MEDLINE-98055670; PubMed-9395292;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Xenopus laevis (African clawed frog).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibla; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
Xenopodinae; Xenopus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-JUL-1998 (Rel. 36, Created)
15-JUL-1998 (Rel. 36, Last sequence updated of the control of the
                                  EMBL; Y09213; CAA70415.1; HSSP; P07700; 1DEP.
                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. between the Swiss Institute of Bio.
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Audigier Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                                                                                                                                                                             SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROTEINS (BY SIMILARITY).
SUBCELLULAR LOCATION: Integral membrane protein.
STM: HOMOLOGOUS DESENSITIZATION OF THE RECEPTOR IS
PHOSPHORYLATION BY BETA-ADRENERGIC RECEPTOR KINASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
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   IPR000276;
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                                                                                                                                                                                                                                                                                           ght. It is produced through a collaboration
Bioinformatics and the EMBL outstation -
titute. There are no restrictions on its
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P15823; Q63215;
01-APR-1990 (Rel. 14, Created)
01-JUN-1994 (Rel. 29, Last sequence update)
15-JUL-1998 (Rel. 36, Last annotation update)
Alpha-1B adrenergic receptor (Alpha 1B-adrenoceptor).

ADRA1B.
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Multigene
             STRAIN-Sprague-Dawley; TISSUE-Brain; MEDLINE-90192094; PubMed-2156222; Voigt M.M., Kispert J., Chin H.;
                                                                          Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=10116;
                                                                                                                Rattus norvegicus (Rat).
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ed receptor; Transmembrane; Glycoprotein;
ed receptor; Transmembrane; Glycoprotein;
ed receptor; Transmembrane; Glycoprotein;
extraceLLULAR (POTENTIAL).
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CYTOPLASMIC (POTENTIAL).
N-LINKED (GLCNAC...) (POT
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PALMITATE (BY SIMILARITY).
M; 0153D05AE49EOC1B CRC64;
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  alpha-1B adrenergic
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EMBL; X51585; CAA35934.1; -.
EMBL; M60655 AAA63478.1; -.
EMBL; L08610; AAA40647.1; -.
EMBL; L08609; AAA40647.1; JOIN
EMBL; D32045; BAA66806.1; -.
PIR; JC1525; JC1525.
HSSP; P29274; 1MMH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      receptor.";
Nucleic Acids Res. 1
[2]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Yang-Feng T.L., Brownstein M., Lefkowitz R.J., Caron M.G.;
"Molecular cloning and expression of the cDNA for the alpha ladrenergic receptor. The gene for which is located on human chromosome 5.";
J. RIOI Chrom.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a c between the Swiss institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and fo entitles requires a license agreement (See http://www.isb-sib.or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                            InterPro; IPR000276; GPCR_Rhodpsn. pfam; PF00001; 7tm_1; 1. pRINTS; PR00237; GPCRRHODDSN. PROSITE; PS00237; G_PROTEIN_RECEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Isolation and characterization adrenergic receptor."; Gene 131:243-247(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         266:6365-6369(1991).
                                                                                                                                                                                                                                                                                                                    G_PROTEIN_RECEP_F1_1; 1.

G_PROTEIN_RECEP_F1_2; 1.

G_PROTEIN_RECEP_F1_2; 1.

receptor; Transmembrane; Glycoprotein;
PhosphoryLation; Lipoprotein; Palmitate.

45

EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FROM N.A.
PubMed=7989580;
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   18:1053-1053(1990).
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EXTRACELLULAR (POTENTIAL).

5 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

6 (POTENTIAL).

6 (POTENTIAL).

7 (POTENTIAL).

7 (POTENTIAL).

10 (POTENTIAL).

11 (POTENTIAL).

12 (POTENTIAL).

POLY-ARG.

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).
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CYTOPLASMIC (PO
2 (POTENTIAL).
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RESULT 13
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01-NOV-1995
16-OCT-2001
          Gluchowski C.;
Gluchowski C.;
The alpha 1-adrenergic receptor that mediates ::mooth contraction in human prostate has the pharmacological contraction alpha alpha lc subtype.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A1AB_HUMAN
P35368;
contraction in human prostate has
the cloned human alpha 1c subtype.
Mol. Pharmacol. 45:703-708(1994).
                                                                                          MEDLINE-94239386; PubMed-8183249; Forray C., Bard J.A., Wetzel J.M. Lepor H., Hartig P.R., Weinshank
                                                                                                                                                                                                                                                    Graham R.M.; 
"Genomic org
                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
MEDLINE-93016158; PubMed-1328250;
Ramarao C.S., Denker J.M., Perez
                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
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                                                                                                                                                                                                                                  receptor.
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995 (Rel. 32, Last sequence update)
001 (Rel. 40, Last annotation update)
adrenergic receptor (Alpha 1B-adrenoceptor).
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                                                                                                                                                                                                                Chem.
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S -> C (IN
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C -> C (IN
C -> V (IN
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2; Mismatches
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Pred. No. 2
                                                                                                                                                                                                                                                                                                                                                                                      Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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AF0C3759F80C3135
                                                                                            R.L.,
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-> LSF (IN REF. 2).
-> C (IN REF. 1 ALD 4).
-> C (IN REF. 1 ALD 4).
-> OK (IN REF. 3).
-> OK (IN REF. 3).
-> Y (IN REF. 3).
-> ATA (IN REF. 1).
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                                                                                                                Chiu
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                                                                                                Branchek
                                                                                                                G.,
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.8e-21;
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properties
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CONFLICT
CONFLICT
CONFLICT
SEQUENCE
                                                                          CARBOHYD
CARBOHYD
DISULFID
LIPID
                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          J. Pharmacol. Exp. Ther. 272:134-142(1995).
-- FUNCTION: THIS ALPHA-ADRENERGIC RECEPTOR MEDIATES ITS ASSOCIATION WITH G PROTEINS THAT ACTIVATE A PHOSPHATI CALCIUM SECOND MESSENGER SYSTEM.
-- SUBCELLULAR LOCATION: Integral membrane protein.
-- SUBCELLULAR LOCATION: OF SAMILY 1 OF G-PROTEIN COUPLED
                                                                                                                                                         DOMAIN
CARBOHYD
                                                                                                                                                                                       TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                  DOMAIN
TRANSMEM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an entitles requires a license agreement (See http://www.isborsend an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         adrenergic receptors: sequence corrections other species homologues.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     [3]
SEQUENCE FROM N.A.
MEDLINE-95114877; PubMed-7815325;
                                                                                                                                                                                                                                                                                                   TRANSMEM
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EMBL; M99599; -; NOT_ANNOTATED_CDS.
EMBL; U03865; AAB60352.1; -.
EMBL; L31773; AAB59485.1; -.
PIR; A45121; A45121.
HSSP; P29274; 1MMH.
                                                                                                                                          CARBOHYD
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                                                                                                                                                                                                                                                                     TRANSMEM
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GO:0004937;
GO:0004937;
GO:0007267;
GO:0007275;
GO:0007186;
GO:0007188;
GO:0007188;
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             497
519
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202
225
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320
3327
341
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29
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365
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106
116
142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       77; C:integral to plasma membrane; TAS.
17; F:alphal-adrenergic receptor activity; Ti
13; P:cell proliferation; TAS.
15; P:cell-cell signaling; TAS.
15; P:development; TAS.
16; P:G-protein coupled receptor protein sign
18; P:G-protein signaling, coupled to CAMP in
19; P:protein kinase cascade; TAS.
              A,
                                              745
831
105
115
115
1161
1161
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2201
3266
3366
3460
3769
3799
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              M.
                          CYTOPLASMIC (PO
POLY-ARG.
N-LINKED (GLCNA
N-LINKED (GLCNA
N-LINKED (GLCNA
N-LINKED (GLCNA
N-LINKED (GLCNA
BY SIMILARITY
PALMITATE (POTE
R -> RG (IN REE
MISSING (IN REE)
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CYTOPLASMIC (PC
2 (POTENTIAL).
EXTRACELLULAR
3 (POTENTIAL).
CYTOPLASMIC (PC
4 (POTENTIAL).
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6 (POTENTIAL)
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7 (POTENTIAL)
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5 (POTENTIAL)
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              C4727A147D0A1780
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(GLCNAC...
(GLCNAC...
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                                                                          (POTENTIAL).
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REF. 1,
4 (IN REF. 1,
1780 CRC64;
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or send an email to license@isb-sib.ch).

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RESULT 14
BIAR_MELGA
ID BIAR_M
AC P07700
DT 01-APR
DT 01-APR
DT 28-FEBS
DE Beta-1
OS Meleag
OC Archos
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Best Local Sim
Matches 107;
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01-APR-1988 (Rel. (
01-APR-1988 (Rel. (
28-FEB-2003 (Rel. (
                                                                                                                      Jung H., Windhaber R., Palm D., Schnackerz K.D.;

"NMR and circular dichroism studies of synthetic peptides derived from the third intracellular loop of the beta-adrenoceptor.";

FEBS Lett. 358:133-136(1995).

-I- FUNCTION: BETA-ADRENERGIC RECEPTORS MEDIATE THE CATECHOLAMINE-INDUCED ACTIVATION OF ADENYLATE CYCLASE THROUGH THE ACTION OF G PROTEINS, THIS RECEPTOR BINDS EPINEPHRINE AND NOREPINEPHRINE WITH APPROXIMATIVELY EQUAL AFFINITY.

-I- SUBCELLULAR LOCATION: Integral membrane protein.

-I- PTM: HOMOLOGOUS DESENSITIZATION OF THE RECEPTOR IS MEDIATED BY ITS PHOSPHORYLATION BY BETA-ADRENERGIC RECEPTOR KINASE.

-I- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
MEDLINE-86313664; PubMed-1
Yarden Y., Rodriguez H., V
Burnier J., Harkins R.N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Meleagris gallopavo (Common turkey).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Meleagrididae; Meleag
                                                                                                                                                                                                                                                                                                                                                                  STRUCTURE BY NMR OF 345-359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Beta-1 adrenergic receptor (Beta-T)
       entities
                                                                                                                                                                                                                                                                                                                                              MEDLINE-95129696; PubMed-7828722;
                                                                                                                                                                                                                                                                                                                                                                                                      Proc. Natl. Acad.
                                                                                                                                                                                                                                                                                                                                                                                                                   topology.
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                                                       European
SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way fied and this statement is not removed. Usage by and for commercial ties requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                 E.M.;
avian beta-adrenergic receptor:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               PubMed=3018746;
uez H., Wong S.K.-F., Brandt D.R., M.
ns R.N., Chen E.Y., Ramachandran J.,
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07, Last sequence up
41, Last annotation
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Pred. No. 2.8e-21;
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RESULT 15
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                          HH2R_RAT STAN
P25102;
01-MAY-1992 (Rel. 2
01-MAY-1992 (Rel. 2
16-OCT-2001 (Rel. 4
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SEQUENCE
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TRANSMEM
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PDB; 10EF; 14-OCT-96.

InterPro; IPR000276; GPCR_Rhodpsn

Pfam; PF00001; 7tm_1; 1.

PRINTS: PR00237; GPCRRHODOPSN.
                   Histamine
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Rattus norvegicus
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PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
G-protein coupled receptor; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; M14379; AAA49627.1;
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483
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                   receptor
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                                                               STANDARD;
                           22,
40,
(Rat)
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1159
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1208
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3588
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r (H2R) (Gastric r
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                                                                                                                                                                                                                                                                                                                                                                        MW;
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                   (Gastric receptor
                                                                                                                                                                                                                                                                                                                                             Score 417; DB 1;
Pred. No. 3.1e-21;
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CYTOPLASMIC (
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2 (POTENTIAL)
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CYTOPLASMIC (
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Eukaryota; Metazoa; (
Mammalia; Eutheria; |
NCBI\_TaxID=10116;
[1]

Chordata; Craniata; Vertebrata; Euteleostomi; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.

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PROSITE; PSO0237; GECRHODOPSN.

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PROSITE; PSO0237; GECRHOTEIN_RECEP_F1_2; 1.

PROSITE; PSO0237; GECRHOTEIN_RECEP_F1_2; 1.

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"Cloning and tissue expression of a rat histamine H2-receptor gene.";
Biochem. Biophys. Res. Commun. 179:1470-1478(1991).
-I- FUNCTION: THE H2 SUBCLASS OF HISTAMINE RECEPTORS MEDIATES GASTRIC ACID SECRETION. THE ACTIVITY OF THIS RECEPTOR IS MEDIATED BY G PROTEINS WHICH ACTIVATE ADENIVITY CYCLASE.
-I- SUBCELLULAR LOCATION: Integral membrane protein.
-I- SUBCELLULAR LOCATION: Integral membrane protein.
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126 YPVLVTPVRVAISLVFI-WVISITLSFLSIHLG-----
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ESSENTIAL FOR HISTAMINE BINDING
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7 (POTENTIAL).
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-WNSRNGTRGGNDTFKCKVQ 176
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Search completed: August 26, 2003, 14:24:11 Job time: 15 secs

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Q96ri8 homo sapien
Q969n4 homo sapien
Q923x7 rattus nor
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Pr	O14804  PRELIMINARY;  PRT;  O14804  O1-JAN-1998 (TrEMBLrel. 05, Created) O1-JAN-1998 (TrEMBLrel. 23, Last sequence update) O1-MAR-2003 (TrEMBLrel. 23, Last annotation update) Putative neurotransmitter receptor.  Homo sapiens (Human).  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eui Mammalia; Euthberia; Primates; Catarrhini; Hominidae; HO NCBI_TaxID=9606; [1]  SEQUENCE FROM N.A.  MEDLINE=98125534; PubMed=9464258; SEQUENCE FROM N.A.  ROBI_TaxID=9606;  "Cloning of a putative human neurotransmitter receptor  "Cloning of a putative human neurotransmitter  "Cloning	
<b>=</b> 5	RT; 337 AA.  aated) tt sequence update) tt annotation update) traniata; Vertebrata; Ev atarrhini; Hominidae; F atarrhini; Hominidae; F atarrhini; Hominidae; F E242:575-578(1998). RAL MEMBRANE PROTEIN COUPI SSN. ttin. ttin. EEP_F1_1; 1. EEP_F1_2; 1.	
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InterPro; IPRO00585; Hemopexin.
Pfam; PF00001; 7tm_1; 1.
PRINTS; PR00237; GPCRHODOPSN.
PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
PROSITE; PS002362; G_PROTEIN_RECEP_F1_2; 1.
PROSITE; PS00024; HEMOPEXIN; 1.
G-protein coupled receptor; Receptor; Transequence 374 AA; 41495 MW; C88FFDE2D04
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STRAIN-Sprague-Dawley;
STRAIN-Sprague-Dawley;
Borowsky B., Adham N., Jones K.A., Raddatz R., Artymyshyn R.,
Borowsky B., Adham N., Lakhlani P.P., Bonini J.A., Pathirana
Ogozalek K.L., Durkin M.M., Lakhlani P.P., Bonini J.A., Pathirana
Boyle N., Pu X., Kouranova E., Lichtblau H., Ochoa F.Y.,
Branchek T.A., Gerald C.;
"Trace amines: Identification of a family of mammalian G protein-
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Q923X9;
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-I- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN
-I- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUEMBL; AF380199; AAK/1250.1; -
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Eukaryota; Metazoa; Chordata;
Mammalla; Eutherla; Rodentia;
NCBI_TaxID-10116;
                                                                                                                                                                                                                                                                                                                                                                                                                coupled receptors."
Proc. Natl. Acad. S
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68; Mismatches
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coupled receptors.";

proc. Natl. Acad. Sci. U.S.A. 98:8966-8971
-; SUBCELLULAR LOCATION: INTEGRAL MEMBRAN
-; SIMILARITY: BELONGS TO FAMILY 1 OF G-EMBL; AF380195; AAK71246-1;
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InterPro; IPR000276; GPCR_Rhodpsn.
InterPro; IPR000585; Hemopexin.
pfam; pF00001; 7tm_1; 1.
prints; pR00237; GPCRRHODDPSN.
prints; pR00237; GPCRRHODDPSN.
pROSITE; pS00237; GPROTEIN_RECEP_F1_1; 1.
pROSITE; pS00236; G_PROTEIN_RECEP_F1_2; 1.
pROSITE; pS0024; HEMOPEXIN; 1.
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MEDLINE-21374364; PubMed-11459929;
BOTOWSKY B., Adham N., Jones K.A., Raddatz R.
Ogozalek K.L., Durkin M.M., Lakhlani P.P., Bo
Boyle N., Pu X., Kouranova E., Lichtblau H.,
Branchek T.A., Gerald C.;
"Trace amines: Identification of a family of
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
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Pred. No. 2.5e
57; Mismatches
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Sciurognathi;
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Bonini J.A., Pathirana
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01-DEC-2001
01-MAR-2003
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN-Sprague-Dawley;
MEDLINE-21374364; PubMed-11459929;
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  FYPWFRKAIKLIVTGKILKENSSTINLFPE
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Pred. No. 2.6e<sup>o</sup>
70; Mismatches
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STRAINS-Sprague-Dawley;

X MEDLINE-21374364; PubMed=11459929;

X MEDLINE-21374364; PubMed=11459929;

X MEDLINE-21374364; PubMed=11459929;

X MEDLINE-Sprague-Dawley;

X MEDLINE-21374364; PubMed=11459929;

X MEDLINE-21374464; PubMed=11459929;

X MEDLINE-2137464; PubMed=11459929;
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Q923Y2;
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Q1-DEC-2001
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PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.

PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.

G-protein coupled receptor; Receptor; Transmembrane.

G-protein coupled receptor; Receptor; Coupled Receptor; Second Receptor; Receptor; Transmembrane.
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
        Q923Y0;
01-DEC-2001
01-DEC-2001
01-MAR-2003
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Pred. No. 8.8e-65;
8; Mismatches 103
                                                             Created)
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          sequence update) annotation updat
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Best Loc
Matches
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Q923X8;
01-DEC-2001
01-DEC-2001
01-MAR-2003
Trace amine
                  Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   coupled receptors.";

Proc. Natl. Acad. Sci. U.S.A. 98:8966-8971(2001).

-I- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN (BY SIMILARITY).

-I- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.

EMBL; AF380198; AAK71249.1; -

InterPro; IPR000276; GPCR_Rhodpsn.

InterPro; IPR000276; GPCR_Rhodpsn.

InterPro; IPR000585; Hemopexin.

Pfam; PF00001; 7tm.1; 1.
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PROSITE; P
PROSITE; P
G-protein
SEQUENCE FROM N.A.
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MEDLINE-21374364; PubMed-11459929;

Borowsky B., Adham N., Jones K.A., Raddatz R., Artymyshyn R.,

Ogozalak K.L., Durkin M.M., Lakhlani P.P., Bonini J.A., Pathirana
Boyle N., Pu X., Kouranova E., Lichtblau H., Ochoa F.Y.,

Branchek T.A., Gerald C.;

Trace amines: Identification of a family of mammalian G protein-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
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Eukaryota; Metazoa; Cho
Mammalia; Eutheria; Rod
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PS0037; G_PROTEIN_RECEP_F1_1; 1.
PS50262; G_PROTEIN_RECEP_F1_2; 1.
PS00024; HEMODEXIN; 1.
PS00024; HEMODEXIN; 1.
Coupled receptor; Receptor; Transmembrane.
344 AA; 38015 MW; 6AB7A52CE3BEB692 CRC64;
                                                                                                                                                                                                                           VFSYQWFRKALKLTLSQKVFSPQTRTVDLYQE
                                                                                                                                                                                                                                                           RERKAAKTLGVTVLAFIVSWLPYTIDTLIDAFMGFITPAYVYEFCCWSAYYNSAMNPLIY
                                                                                                                                                                                                                                                                       HERKAAKTLGIVVGIYLLCWLPFTIDTMVDSLLHFITPPLVFDIFIWFAYFNSACNPIIY 305
                                                                                                                                                                                                                                                                                                                         LNKFWGWLNFPLFFVPCLIMISLYVKIFVVATRQAQQITT-----LSKSLAGAAK
                                                                                                                                                                                                             AFFYPWFRKAMKLILSGKILKGHSSTTSLFSE
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                                                                                                 (TrEMBLIE1. (TrEMBLIE1.
                                                                                     receptor
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Rodentia;
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Pred.
                               Craniata; Vertebrata;
Sciurognathi; Muridae;
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No. 2.3
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                                           Euteleostomi;
                               Murinae;
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Matches 148
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MEDLINE-21374364; PubMed-11459929;
BOTOWSKY B., Adham N., Jones K.A., Raddatz R.,
Ogozalek K.L., Durkin M.M., Lakhlani P.P., Bonil
Boyle N., Pu X., Kouranova E., Lichtblau H., Oc
Branchek T.A., Gerald C.;
"Trace amines: Identification of a family of ma
coupled receptors.";
Proc. Natl. Acad. Sci. U.S.A. 98:8966-8971(2001)
                                                                                                                                                                                                                                                                                                                                                                             Q96RI9;
Q96RI9;
01-DEC-2001
01-DEC-2001
01-MAR-2003
                                                         SEQUENCE FROM N.A.

MEDLINE-21374364; PubMed-11459929;
Borowsky B., Adham M., Jones K.A., Raddatz R.
Ogozalek K.L., Durkin M.M., Lakhlani P.P., Be
Boyle N., Pu X., Kouranova E., Lichtblau H.,
Branchek T.A., Gerald C.;
"Trace amines: Identification of a family of
           Proc.
                                                                                                                                                                                                                                                 TA3.
Homo sapiens (Human).
Homo sapiens (Human).
Thervota; Metazoa; Chordata;
Thervia; Primates;
                                             coupled receptors."
                                                                                                                                                                                                                                                                                                                                                          Trace amine
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PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.

PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.

G-protein coupled receptor; Receptor; Transmembrane.

G-protein coupled receptor; Receptor; Cransmembrane.

G-protein coupled receptor; Receptor; Cransmembrane.
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         SUBCELLULAR
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(TrEMBLrel.
receptor 3.
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                         U.S.A.
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ON: INTEGRAL MEMBRANE PROTEIN (BY S
TO FAMILY 1 OF G-PROTEIN COUPLED
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19,
23,
    INTEGRAL
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Last annotation updat
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                      98:8966-8971(2001)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
    MEMBRANE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                348
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                                                                                                                              R., Artymyshyn R.,
Bonini J.A., Pathirana
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Bonini J.A., Pathirana
., Ochoa F.Y.,
  PROTEIN
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T coupled receptors.*;

Proc. Natl. Acad. Sci. U.S.A. 98:8966-8971(2001).

Proc. Natl. Acad. Sci. U.S.A. 98:8966-8971(2001).

C -!- SUBCELLUIAR LOCATION: INTEGRAL MEMBRANE PROTEIN (BY SIMI C. SUBLIARITY: BELONGS TO FAMILY 1 OF G-PROTEIN (OUPLED RECEPTAL).

R PROBLE: AF8380202: AAK71253.1;

R PINTERPRO(0276; GPCR_Rhodpsn.

PFAUNTS: PR000237; TM_1; 1.

PR PRINTS: PR00237; GPCRRHODOPSN.

PROSITE: PS00237; GPROTEIN_RECEP_F1_1; 1.

PROSITE: PS00237; G_PROTEIN_RECEP_F1_2; 1.

G-PROTEIN_RECEP_F1_2; 1.

G-PROTEIN COUPLED RECEPTOR: Transmembrane.

SEQUENCE 358 AA; 40216 MM; 516414E0EF0FDF00 CFC64;
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Best Loc
Matches
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EMBL; AF380189; AAK71240.1; -
InterPro; IPRO00276; GPCR_Rhodpsn.
Pfam; pF00001; 7tm_1; 1.
PRINTS; PR00237; GPCRRHODOPSN.
PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
PROSITE; PS00237; G_PROTEIN_RECEP_F1_2; 1.
G-Protein coupled receptor; Receptor; Tran
SEQUENCE 348 AA; 39016 MW; DOC6484880A
                                                                                                                                                                                                                                                                                                                                                                                            01-DEC-2001
01-DEC-2001
01-MAR-2003
Trace amine
                                                                                                                                                                                 STRAIN-Sprague-Dawley;
MEDLINE-21374364; PubMed-11459929;
Borowsky B., Adham N., Jones K.A., Raddatz R.
Ogozalek K.L., Durkin M.M., Lakhlani P.P., Bc
Boyle N., Pu X., Kouranova E., Lichtblau H.,
Branchek T.A., Gerald C.;
"Trace amines: Identification of a family of
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q923X6;
Q923X6;
                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                  Rattus norvegicus
                                                                                                                                                                                                                                                                                                                     NCBI_TaxID-10116
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Da; Chordata;
ia; Rodentia;
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Last sequence update)
Last annotation updat
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Pred. No. 3.2e
64; Mismatches
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V; D0C6484880A6F761 C3C64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
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.2e-63;
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Bonini J.A., Pathirana
., Ochoz F.Y.,
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Best 1
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Q923Y5;
Q1-DEC-2001
Q1-DEC-2001
Q1-MAR-2003
                                                                                                                                                          Coupled receptors.;

Proc. Natl. Acad. Sci. U.S.A. 98:8966-8971(2001).

-1- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN (BY SIMILARITY).
-1- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
EMBL; AF380191; AAK71242.1; -.
InterPro; IPRO00276; GPCR_Rhodpsn.
Pfam; pr00001; 7tm.1; 1.
PFANTS; PR00237; GPCRRHODOPSN.
PRINTS; PR00237; GPCRRHODOPSN.
PROSITE; PS00237; GPCRRHOLOPSN.
PROSITE; PS00237; GPCRHOLOPSN.
PROSITE; PS00237; GPCRRHOLOPSN.
PROSITE; PS00237; GPCRHOLOPSN.
PROSITE; PS00237; GPCRRHOLOPSN.
PROSITE; PS00237; GPCRHOLOPSN.
PROSITE; PS00237; GPCRHOLOPSN.
PROSITE; PS00237; GPCRHO
                                                                                                                                                                                                                                                                                                                                                                                                                  Borowsky B., Adham N., Jones K.A., Raddatz R., Artymyshyn R., ogozalek K.L., Durkin M.M., Lakhlani P.P., Bonini J.A., Pathirana Boyle N., Pu X., Kouranova E., Lichtblau H., Ochoa F.Y., Branchek T.A., Gerald C.;
"Trace amines: Identification of a family of mammalian G protein-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN=Sprague-Dawley;
MEDLINE=21374364; PubMed=11459929;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
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                                                                                                            Local
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                                                                                                          Similarity
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GSNSSPPAVLQLCYENVNGSCVKTPYSPGPRVLLYAVFGFGAVLAVFGNLLVMISILHFK
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Rodentia;
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19,
23,
                                                                                    74;
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Last sequence Last anno
                                                                               Score 805; DB Pred. No. 1.5e 74; Mismatches
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Pred. No. 7.5e-63;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches 105;
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annotation
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                                                                               DB 11;
..5e-62;
les 106;
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                                                                                                                         Length 345;
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Best Loc
Matches
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Q923X5;
Q1-DEC-2001
Q1-DEC-2001
Q1-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-Sprague-Dawley;
MEDLINE-21374364; PubMed-11459929;
BOTOWSKY B., Adham N., Jones K.A., Raddatz R.
Ogozalek K.L., Durkin M.M., Lakhlani P.P., Bc
Boyle N., Pu X., Kouranova E., Lichtblau H.,
Branchek T.A., Gerald C.;
"Trace amines: Identification of a family of
coupled receptors."
                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00001; 7tm_1; 1.

PRINTS; PR00237; GPCRRHODDPSN.

PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.

PROSITE; PS00237; G_PROTEIN_RECEP_F1_2; 1.

G-protein coupled receptor; Receptor; Transmembrane.

SEQUENCE 358 AA; 40652 MM; EE884D9219EE1171 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                         Local
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                                                                                                                            LACADFLVGLTVMPFSMVRSVEGCWYFGDTYCKLHTCFDVSFCYCSLFHLCFISVDRYIA
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ON: INTEGRAL MEMBRANE PROTEIN (BY :
S TO FAMILY 1 OF G-PROTEIN COUPLED
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19,
23,
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Last sequence that the control of the cont
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Pred. No. 2.5e
7; Mismatches
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Bonini J.A., Pathirana
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; Murinae; Rat
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JPLED RECEPTORS.
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Best Local Similarity
Matches 146; Conserv
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Q923Y4;
Q1-DEC-2001
Q1-DEC-2001
Q1-OCT-2002
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INTERPOO276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.

PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.

PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.

G-PROTEIN_RECEP_F1_2; 1.

G-PROTEIN_RECEP_F1_2; Transmembrane.
SEQUENCE 358 AA; 40074 MW; CAE028CF89943DCE CRC0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Borowsky B., Adham N., Jones R
Ogozalek K.L., Durkin M.M., La
Boyle N., Pu X., Kouranova E.,
Branchek T.A., Gerald C.;
"Trace amines: Identification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. STRAIN-Sprague-Dawley; MEDLINE-21374364; PubMed-11459929;
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Mammalia; Eutheria;
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  FYPWFRNAIKLIVTGKILKQNSSTTNLFSE
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Durkin M.M., Lakhlani P.P., Bo
., Kouranova E., Lichtblau H.,
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oa; Chordata;
ia; Rodentia;
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Pred. No. 6.8e
67; Mismatches
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Last annotation updat
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EGRAL MEMBRANE PROTEIN (BY :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       of a
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Sciurognathi; Muridae;
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Bonj
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ini J.A., Pathirana
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CRC64;

(BY SIMILARITY)

RECEPTORS

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protein-

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Euteleostomi; ; Murinae; Rat

Rattus.

Indels Length

9;

Gaps

-AKHE

247 208

268

307

328

148 135

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RESULT
Q96RI8
ID Q9
AC Q9
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Best Local S
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  Q96RI8;
Q96RI8;
01-DEC-2001
01-DEC-2001
01-MAR-2003
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Q923Y6;
Q1-DEC-2001
Q1-DEC-2001
Q1-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN-Sprague-Dawley;
MEDLINE-21374364; PubMed-11459929;
Borowsky B., Adham N., Jones K.A., Raddatz R.
Ogozalek K.L., Durkin M.M., Lakhlani P.P., Bo
Boyle N., Pu X., Kouranova E., Lichtblau H.,
Branchek T.A., Gerald C.;
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PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.

PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.

G-protein coupled receptor; Receptor; Transmembrane.

SEQUENCE 338 AA; 37846 MW; F8BC058A21664EA4 CIC64;
                                                                                                                                                                                                                                                                                                                                                                                                                          -!- SUBCELULAR LOCATION: INTEGRAL MEMBRANE PROTEIN (BY SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN (SUPLED EMBL; AF380190; AAK71241.1; -...
InterPro; IPRO00276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
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                                                                                           FYPWFRKAIKLIVSGKVFRADSSRTNLFSE
                                                                                                    SYQWFRKALKLTLSQKVFSPQTRTVDLYQE
                                                                                                                                LALADMELGLLVLPLSTIRSVESCWFFGDFLCRLHTYLDT1.FCLTSIFHLCFISIDRHCA
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                                                                                                                                                                        LNQNWYLLCFLLFFLPTVVMVFLYGRIFLVAKQQARKIEG! ANQPQASSESYKERVARRE
                                                                                                                                                                                     VTDPLTYPTKFTISVSGVCIALSWFFSVTYSFSIFYTGANIEGIEELVVALTCVGGCQAP
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Last annotation
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Pred. No. 9.7
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Bonini J.A., Pathirana
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; Murinae; Rat
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Best Local :
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Q969N4;
Q1-DEC-2001 (TrEMBLrel. 19, 0
01-DEC-2001 (TrEMBLrel. 19, 1
01-MAR-2003 (TrEMBLrel. 23, 1
G protein-coupled receptor (3
GPR102 OR TAS
                                                                                             Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.

PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.

G-protein coupled receptor; Receptor; Transmembrane.

G-protein a45 AA; 38451 MW; 21B1C4968C39FE2C CRC64;
    SEQUENCE FROM N.A. MEDLINE=21458557; Lee D.K., Nguyen T
                                                               NCBI_TaxID=9606;
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InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
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Branchek T.A., Gerald
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Trace amines: Identification of a family
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. MEDLINE-21374364;
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SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN (BY SIMILARITY)
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Durkin M.M., I
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AAK71243.1; -.
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am N., Jones K.A., Raddatz
urkin M.M., Lakhlani P.P.,
Kouranova E., Lichtblau H.
PubMed=11574155;
r., Lynch K.R., Cheng
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Primates;
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Pred. No. 6.1e-61;
                                                                                               Craniata; Vertebrata; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                            PRT;
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Bonini J.A., Pa
  Vanti
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₩.B.,
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Arkhitko
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Pathirana
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Search completed: August 26, 2003, 14:24:57 Job time : 41 secs
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Proc. Natl. Acad. Sci. U.S.A. 98:8966-8971(2001).

EMBL; AF411116; AAL26487.1; -.

REMBL; AF380193; AAK71244.1; -.

R Genew; HGNC:14964; GPR102.

R InterPro; IPR000276; GPCR_Rhodpsn.

R Pfam; PF00001; 7tm_1; 1.

R PRINTS; PR00237; GPCRHODDPSN.

R PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.

R PROSITE; PS00237; G_PROTEIN_RECEP_F1_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 44.0%; Score 785.5; DB 4; Length 342; Best Local Similarity 43.9%; Pred. No. 7.4e-61; Matches 145; Conservative 69; Mismatches 107; Indels 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.

MEDLINE-21374364; PubMed-11459929;

MEDLINE-21374364; PubMed-11459929;

Borowsky B., Adham N., Jones K.A., Raddatz R., Artymyshyn R.,

Ogozalek K.L., Durkin M.M., Lakhlani P.P., Bonini J.A., Pathirana S.,

Boyle N., Pu X., Kouranova E., Lichtblau H., Ochoa F.Y.,

Branchek T.A., Gerald C.;

"Trace amines: Identification of a family of mammalian G protein-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Lewis T., Evans J.F., George S.R., O'Dowd B.F.; "Discovery and mapping of ten novel G protein-coupled receptor genes."; Gene 275:83-91(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Receptor.
SEQUENCE
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US-09-555-313B-24
US-08-446-822-8
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US-08-446-822-4
US-08-446-825A-21
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Sequence 2, Application US/09286805
Patent NO. 6117990
GENERAL INFORMATION:
APPLICANT: Bonini, James A.
APPLICANT: Borowsky, Beth E.
APPLICATT: Borowsky, Beth E.
TITLE OF INVENTION: DAA Encoding Orphan SNOR
FILE REFERENCE: 58987
CURRENT FILING DATE: 1999-04-06
CURRENT FILING DATE: 1999-04-06
NUMBER OF SEQ ID NOS: 4
SOFTWARE: Patentin Ver. 2.0 - beta
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; TYPE: PRT
; ORGANISM: Homo sapiens
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; Sequence 4, Application U
; Patent No. 6117990
; GENERAL INFORMATION:
APPLICANT: BONIN1, James
; APPLICANT: BOTOWSKY, Bet
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Best Local S
Matches 152
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4; Mismatches 105
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; TYPE: PRT
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CURRENT FILING DATE: 1999-04-06
NUMBER OF SEQ ID NOS: 4
SOFTWARE: Patentin Ver. 2.0 - beta
SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 2, Application US/08788539A Patent No. 5871967
GENERAL INFORMATION:
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                                                                                                                                                    OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version
CURRENT APPLICATION DATA:
             ATTORNEY/AGENT INFORMATION:
NAME: Han, William T
REGISTRATION NUMBER: 34,344
                                                                                           FILING DATE: 24-JAN-1997
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
COMPUTER: IBM Compat
                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: SmithKline Beecham
STREET: 709 Swedeland Road
                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: SmithKline Beecham Corporation TITLE OF INVENTION: CLONING OF A NOVEL G-TITLE OF INVENTION: COUPLED 7TM RECEPTOR
                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
                                                               APPLICATION NUMBER: FILING DATE:
                                                                                                                           APPLICATION NUMBER: FILING DATE: 24-JAN
                                                                                                                                                                                                                                                                                      CITY: King of Prussia
STATE: PA
                                                                                                                                                                                                                                                                         COUNTRY:
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 REFERENCE/DOCKET
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Pred. No. 7.3e-60;
4; Mismatches 107;
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US-09-555-313B-4
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Patent No. 6506580
GENERAL INFORMATION:
APPLICANT: FICSHMEISTER, Rudolph et
                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQ ID NOS: 24
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 4
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                                                                                                                                                                                                          Best
                                                                                                                                                                                                                                       Query Match
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TITLE OF INVENTION: Splicing variants of the
TITLE OF INVENTION: Splicing variants of the
TITLE OF INVENTION: Splicing variants
FILE REFERENCE: P06762US00/BAS
CURRENT APPLICATION NUMBER: US/09/555,313B
CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: FR 97/15037
PRIOR FILING DATE: 1997-11-28
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SEQUENCE CHARACTERISTICS:
LENGTH: 343 amino acid
TYPE: amino acid
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TELEPHONE: 610-270-5219
TELEFAX: 610-270-4026
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; TYPE: PRT
; ORGANISM: Homo s
US-09-555-313B-24
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GENERAL INFORMATION:
APPLICANT: FICSHMEISTER, Rudolph et al.
APPLICANT: INVENTION: Splicing variants of the human serotoninergic receptor
TITLE OF INVENTION: 5-HT4 and uses thereof, in particular for screening
FILE REFERENCE: P06762US00/BAS
CURRENT APPLICATION NUMBER: US02-08-13
CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: FR 97/15037
PRIOR APPLICATION NUMBER: FR 97/15037
PRIOR FILING DATE: 1997-11-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 24, Application US/0955313B Patent No. 6506580
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                                                       PIIYVFSYQWFRKALKLTL 320
                                                                                                                                                                                                                                                                FWG-WLNFPLFFVPCLIMISLYVKIFVVATRQAQQITTLSKSLAGAAKHER------
                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAIELVQDIWIYGEVFCLVRTSLDVLLTTASIFHLCCISLDRYYAICCQPLVYRNKMTPL 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STIRSVESCWEFGDFLCRLHTYLDTLFCLTSIFHLCFISIDRHCAI-CDPLLYPSKFT-V 148
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PFLYAFLNKSFRRAFLIIL
                                                                                                                                       RVALRYILAG-WGVPAAYTSLFL-----YTDVVETR-LSQWLEEMPCVGSCQLLLNK 198
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                                                                                                             HRMRTETKAAKTLCIIMGCFCLCWAPFFVTNIVDPFIDYTVPGQVWTAFLWLGYINSGLN
                                                                                                                                                                                                                          PYAITCSVVAFYIPFLLMVLAYYRIYVTAKEHAHQIQMLQR--AGASSESRPQSADQHST
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Pred. No. 4.6e-31;
9; Mismatches 111;
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RESULT 8
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               GENERAL INFORMATION:
APPLICANT: Gerald, Christophe
APPLICANT: Hartig, Paul R.
APPLICANT: Branchek, Theresa
                                                                                         Sequence 8, Application US/09328314 Patent No. 6331401
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Matches 110;
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/446,822
FILING DATE: June 1, 1995
CLASSIFICATION: 800
APPLICANT:
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APPLICANT: SYNAPTIC PHARMACEUTICAL CORPORATION

TITLE OF INVENTION: DNA ENCODING 5-HT4 SEROTONIN RECEPTORS

TITLE OF INVENTION: AND USES THEREOF
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LENGTH: 388 amino acids
TYPE: amino acid
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NAME: White, P., John
REGISTRATION NUMBER: 28,678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 42
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 278-0400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: protein
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CITY: NEW YORK
STATE: NEW YORK
ZIP: 10112
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CORRESPONDENCE ADDRESS:
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Local Similarity 34.5%;
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IT: 30 ROCKEFELLER PLAZA
NEW YORK
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                                                                                                                                                                                                                              PIIYVFSYQWFRKALKLTL 320
                                                                                                                                                                                                                                                                               HRMRTETKAAKTLCIIMGCFCLCWAPFFVTNIVDPFIDYTVPGQVWTAFLWLGYINSGLN
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 Weinshank,
                                                                                                                                                                                                         PFLYAFLNKSFRRAFLIIL 327
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Pred. No. 4.7e-31;
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RESULT 9
PCT-US93-12586-8
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SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 8, Application PC/TUS9312586 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ouery Match 25.5%; Score 455.5; DB 4; Length Best Local Similarity 34.5%; Pred. No. 4.7e-31; Matches 110; Conservative 59; Mismatches 111; Indels
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TYPE: PRT
ORGANISM: Homo s
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                                                                                                                                                                                                                        ZIP: 10112
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                       ATTORNEY/AGENT INFORMATION: NAME: White, P., John
                                                                                                                                     SOFTWARE: PatentIn Release #1.24 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                               STREET: 30 ROCK
CITY: NEW YORK
STATE: NEW YORK
                                                                                                                                                                           MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
NAME: White, P., John REGISTRATION NUMBER: 28,678
                                                                    CLASSIFICATION:
                                                                                            FILING DATE:
                                                                                                               APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                  NEW YORK
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30 ROCKEFELLER PLAZA
                                                                                                                                                                                                                                                                                                                                                                                                               SYNAPTIC PHARMACEUTICAL CORPORATION
VENTION: DNA ENCODING 5-HT4 SEROTONIN RECEPTORS
VENTION: AND USES THEREOF
1EQUENCES: 15
                                                                                                               PCT/US93/12586
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US-09-555-313B-2
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                                                                                                                                                                                                                                                                                                                            Sequence 2, Application US/09555313B
Patent No. 6506580
GENERRAL INFORMATION:
APPLICANT: FICSHMEISTER, Rudolph et al.
TITLE OF INVENTION: Splicing variants of the human serotoninergic receptor TITLE OF INVENTION: 5-H74 and uses thereof, in particular for screening FILE REFERENCE: P06762US00/BAS
CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: FR 97/15037
PRIOR FILING DATE: 1997-11-28
NUMBER OF ESO IN NOC. 24
                                                                                                                                                                                                                                                                            NUMBER OF SEQ ID NOS: 24
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 2
                                                                                                                                  Matches
                                                                                                                                                 Query Match
Best Local Similarity
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Best Local (
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TELEX: 422523 COOP UI
INFORMATION FOR SEQ ID NO: 8:
                                                                                                                                                                                                                      LENGTH: 760
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: 42
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 977-9550
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 388 amino acids
TYPE: amino acid
TOPOLOGY: linear
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                    91
STIRSVESCWFFGDFLCRLHTYLDTLFCLTSIFHLCFIS1DRHCAI-CDPLLYPSKFT-V
                                                 IQLVIYLT-CAAGMLIIVLGNVFVAFAVSYFKALH-TPTNFLLLSLALADMFLGLLVLPL 90
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                                                                                                                             25.5%; score 455.5; DB 4; 34.5%; Pred. No. 9.6e-31; tive 59; Mismatches 111;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25.5%; Score 455.5; DB 5 34.5%; Pred. No. 4.7e-31;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 59; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            42667-A-PCT/JPW/TEP
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US-07-996-772A-2
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                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                       TELEPHONE: (212) 977-9550
TELEFAX: (212) 664-0525
TELEX: 42252 GOOP UI
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: White, P., John
REGISTRATION NUMBER: 28,678
REFERENCE/DOCKET NUMBER: 42/
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.24
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                   TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
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MEDIUM TYPE: Floppy disk
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TITLE OF INVENTION: DNA ENCODING 5-HT4A SEROTONIN
TITLE OF INVENTION: RECEPTORS AND USES THEREOF
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CORRESPONDENCE ADDRESS:
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STREET: 3
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CITY: NEW YORK
STATE: NEW YORK
ZIP: 10112
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/07/996,772A
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GAIELVQDIWFYGEMFCLVRTSLDVLLTTASIFHLCCISLDRYYAICCQPLVYRNKMTPL
                                  STIRSVESCWFFGDFLCRLHTYLDTLFCLTSIFHLCFISIDRHCAI-CDPLLYPSKFT-V 148
                                                                                                          IQLVIYLT-CAAGMLIIVLGNVFVAFAVSYFKALH-TPTNFLLLSLALADMFLGLLVLPL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RVALRYILAG-WGVPAAYTSLFL-----YTDVVETR-LSQWLEEMPCVGSCQLLLNK 198
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                                                                    VEKVVLLTFFAMVILMAILGNLLVMVAVCRDRQLRKIKTNYFIVSLAFADLLVSVLVNAF 76
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                                                                                                                                                                                                                                                                                          387 amino acids
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                                                                                                                                               Conservative
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                                                                                                                                                         25.0%;
33.1%;
                                                                                                                                            ; Score 446.5; DB 1;
; Pred. No. 2.7e-30;
55; Mismatches 110;
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Best Local :
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INFORMATION FOR SEQ ID NO: 2:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 387 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/08, FILING DATE: June 1, 1995 CLASSIFICATION: 800 ATTORNEY/AGENT INFORMATION: WAME: White, P., John
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: SYNAPTIC PHARMACEUTICAL CORPORATION
TITLE OF INVENTION: DNA ENCODING 5-HT4 SEROTONIN RECEPTORS
TITLE OF INVENTION: AND USES THEREOF
NUMBER OF SEQUENCES: 15
                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 28,678
REFERENCE/DOCKET NUMBER: 42:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 278-0400
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                                                                                                                                                                                                       Similarity
                                                          YINSGLNPFLYAFLNKSFRRAFLIIL 327
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RVALRYILAG-WGVPAAYTSLFL------YTDVVETR------LSQWLEEMPCVG
RIAL--MLGGCWVIPMFISFLPIMQGWNNIGIVDVIEKRKFNHNSNSTFCVFMVNKPYAI 194
                             RVALRYILAG-WGVPAAYTSLFL-----YTDVVETR-----LSQWLEEMPCVG
                                                                                                                                                        IQLVIYLT-CAAGMLIIVLGNVFVAFAVSYFKALH-TPTNFLLLSLALADMFLGLLVLPL
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                                                                                                                                                                                       25.0%;
llarity 33.1%;
Conservative 5
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                                                                                                                                                                                       ; Score 446.5; DB 1; ; Pred. No. 2.7e-30; 55; Mismatches 110;
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APPLICANN: Gerald, Christophe
APPLICANN: Hartig, Paul R.
APPLICANT: Hartig, Paul R.
APPLICANT: Branchek, Theresa
APPLICANT: Weinshank, Richard L.
TITLE OF INVENTION: DNA Encoding 5-HT4 Serotonin Receptors And Uses Thereof
FILE REFERENCE: 42667-Az-PCT-US
CURRENT APPLICATION UNMEER: US/09/328,314
CURRENT FILING DATE: 1998-04-03
EARLIER APPLICATION NUMBER: PCT/US93/12586
EARLIER FILING DATE: 1995-07-31
EARLIER APPLICATION NUMBER: PCT/US93/12586
EARLIER FILING DATE: 1993-12-22
EARLIER FILING DATE: 1993-12-24
NUMBER OF SEQ ID NOS: 19
SEC ID NOS: 19
RESULT 14
PCT-US93-12586-2
; Sequence 2, Application PC/TUS9312586
; GENERAL INFORMATION:
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; LENGTH: 387
; TYPE: PRT
; ORGANISM: Rattus norvegicus
US-09-328-314-2
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Pred. No. 2.7e-30;
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Sequence 4, Application US/09328314
Patent No. 6331401
GENERAL INFORMATION:
APPLICANT: Gerald, Christophe
APPLICANT: Hartig, Paul R.
APPLICANT: Branchek, Theresa
APPLICANT: Weinshank, Richard L.
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PCT-US93-12586-2
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NAME: White, P., John
REGISTRATION NUMBER: 28,678
REFERENCE/DOCKET NUMBER: 4266
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 977-9550
TELEPAX: (212) 664-0525
TELEFAX: 425523 COOP UI
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 387 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: 1.000
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Best Local Similarity
Matches 108; Conserv
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CURRENT APPLICATION DATA:
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MEDITM TYPE: Floppy disk
COMPUTER: HM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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CORRESPONDENCE ADDRESS:
ADDRESSEE: COOPER & DUNHAM
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TITLE OF INVENTION: DNA ENCODING 5-HT4 SEROTONIN RECEPTORS
TITLE OF INVENTION: AND USES THEREOF
NUMBER OF SEQUENCES: 15
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NEW YORK
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LENGTH: 406
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Best Local
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CURRENT APPLICATION NUMBER: US/09/328,314
CURRENT FILING DATE: 1998-04-03
EARLIER APPLICATION NUMBER: 08/446,822
EARLIER FILING DATE: 1995-07-31
EARLIER FILING DATE: 1995-07-31
EARLIER APPLICATION NUMBER: PCT/US93/12586
EARLIER FILING DATE: 1993-12-22
EARLIER FILING DATE: 1993-12-24
EARLIER FILING DATE: 1993-12-24
NUMBER: OF SEQ ID NOS: 19
COUNTY OF THE POSITION NUMBER: P
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SCQLLLNKFWGWLNFPLFFVPCLIMISLYVKIFVVATRQAQQITTLSKSLAGAAKHER--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAIELVQDIWFYGEMFCLVRTSLDVLLTTASIFHLCCISLDRYYAICCQPLVYRNKMTPL 136
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ilarity 33.1%;
Conservative 5
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Pred. No. 2.9e-30;
55; Mismatches 110;
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